

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.

The Canadian Practitioner and Review.

Vol. XXXIV. TORONTO, DECEMBER, 1909.

No. 12

Original Communications.

RADIUM AND ITS ACTION IN CONNECTION WITH CERTAIN DISEASES OF THE SKIN.*

BY DR. W. H. B. AIKINS, TORONTO.

Radium was discovered in Paris in 1898 by Prof. Pierre Curie and Mme. Sklodowska Curie in collaboration with M. Bemont.

In 1901 the action of radium was made manifest by a curious accident to M. Becquerel, who imprudently carried a small tube containing radium in his vest pocket for several hours. Fourteen days later the skin lying beneath the pocket where the radium had been resting was found to be in an acute state of inflammation, and M. Besmir attributed it to the action of the radium.

P. Curie then made a voluntary experiment on himself, and the experience was conclusive as to the burning action of the radium on the skin, and thinking that it would be found that the properties of radium had a distinct medical application he confided a sample to M. Danlos, physician to the St. Louis Hospital. This was the point of departure into a new branch of physiotherapy, and to-day the qualities of radium as a valuable therapeutic agent are fully established.¹

As a result of earnest work and careful researches carried on with much patience by Dr. Louis Wickham, a trained scientist, a dermatologist of great note, physician to St. Lazare Hospital, Paris, and also at the surgical clinics of M. Cazin and M. Banzet, the Laboratory for Radium in Paris was established in 1905.

There are many workers who had been using radium before the establishment of this Laboratory, but a new era dawned when Dr. Wickham took charge of the work and brought his

* Read at meeting of the Section of Medicine, Academy of Medicine, Toronto, November 9th, 1909.

great scientific acumen to bear upon the investigations made personally and in collaboration with other competent observers. Through the principle of radium filtration much of the danger incident to its use has been eliminated, and since he has been able to regulate the rays acting on the tissues, the working basis has been more accurate, and in the hands of trained and competent men the value of this therapeutic agent has been placed on a firm basis. Dr. Wickham published his premier paper in the *Annals of Dermatology*, October, 1906, on "Some Notes on the Employment of Radium as a Therapeutic Agent."

In the spring of 1907 I had the opportunity of visiting the Laboratory, and found much of surprise and interest, and met Dr. Louis Wickham. He consented to write a paper for *THE CANADIAN PRACTITIONER AND REVIEW*, which was published in the September issue, 1907, on "The Use of Radium in Skin Diseases."

Again in 1908 I visited the Laboratory, where careful research work was being conducted, and where Dr. Wickham and Dr. Degrais had obtained unquestionable and durable cures.

At first Dr. Wickham undertook to observe thoroughly the effects of bromide of radium on epithelial tumors of the skin, on the superficial cancers of the eyelids, nose and ears, in tuberculosis of the skin and in lupus. In such cases he had encouraging results. But when he undertook the treatment of port wine stains, naevi, vascular tumors and keloids he obtained results little short of marvellous, the disappearance of the tumor, the return of the tissue to normal or almost normal color without the formation of cicatricial tissue and without the destruction of the integument.

In September of this year I again spent three weeks in Paris and once more availing myself of Dr. Wickham's courtesy, frequently visited the Laboratory, and observed the methods employed in treating the patients who crowded the waiting-rooms.

In the early days the apparatus employed was not entirely satisfactory, a tube being mostly used, but by a special varnish made by M. Danne the radium salt is now fixed on a flat metal plate or stiff linen. This varnish is permeable to all the radium rays and resists the action of mild heat, water and most anti-septic solutions, but may be destroyed by emersions in either alcohol or chloroform.

In form the metal plates are square or oblong, though the round ones were formerly used. Care is taken that each centimetre of surface has one centigram of the salt pure or diluted with barium sulphate so as to reduce the radioactivity.

This apparatus has a radioactivity of 500,000, with a centigram of 25% of bromide of radium, incorporated with barium sulphate on a centimetre surface.

It is important to know the force, quality and quantity of the rays which penetrate into the tissues. There are three distinct types of rays. The alpha rays constitute about 90 per cent. of all the rays, and are positively electrified particles. The beta rays, which are the most spectacular and consist of negatively charged particles resembling the cathode rays produced by an electric discharge inside of a highly exhausted vacuum tube, are divided into three classes, the soft, the medium and the hard. These rays are emitted in great preponderance. The gamma rays are few in number. They in many respects resemble very penetrative X-rays, are uninfluenced by magnetism, and pass in straight lines at great speed, and possess remarkable penetrative properties, being able to influence a photographic plate through a foot of iron.

The rays emanating from the apparatus may be modified in strength and character by the interposition of "screens" between the radium and the surface to be acted upon. These may be of aluminum, mica, lead, glass and black paper. Muslin is sometimes used as a protective covering, but what is better is rubber cloth, which satisfactorily protects the varnish surface from moisture and septic secretions. By means of these screens the alpha and beta rays may be cut off.

Using an apparatus such as I now show you, with the interposition of lead, sheets of paper, and tied up in rubber cloth, the surface may be irradiated by the gamma rays exclusively.

As screen² after screen of increasing grades of thickness and density is interposed, first the alpha and soft beta rays will be cut off and absorbed, then the medium beta, then the hard beta. Thus in each case the number of rays having the power to filter through the screens is in decreasing quantity. The rays in proportion to their number will have greater and greater powers of penetration; thus the quality of the radium is changed, because the average of its penetrative power is increased. As the rays diminish in number in proportion as the screens increase in thickness, it is easy to understand that the duration of the application must play a very considerable part, and that this duration must be increased in length in proportion as the rays are diminished in number, and from this fact the following three general rules of treatment can be deduced:

1. Apparatus applied naked. Rays numerous; special action on the surface; duration of application short.
2. Apparatus with interposition of medium filter. Rays less

numerous; action on a greater thickness of tissue; duration of application longer.

3. Apparatus with interposition of thick filter. Rays very few; action on a very great depth of tissue; duration of application very long.

As mentioned, the tubes were formerly much used. A modification of these tubes and the manner in which they are to be utilized has been perfected by Dr. Dominici. This series of tubes, when in their metal case, can be linked together in the form of a chain, or to appear star-like, or as a triangle or otherwise, and arranged so as to conform to the surface of the tumor to be treated. But the flat surface instrument is the one now used in the Paris Laboratory for application to cutaneous surfaces, and in order that the surface tissue of angiomatous tumors, swollen wine stains and other lesions to be acted on should not be injured, screens are employed as above noted to exclude the beta rays, which are apt to produce inflammatory action. With this end in view Drs. Wickham and Degrais devised several methods of procedure, among which is that of the "Feu Croise" or cross fire.

This method consists in applying to the tumor several apparatuses placed opposite to one another two by two, for a shorter time than that for which each of the apparatuses would cause a surface irritation. By this method all the rays act, both the very penetrating ones and those less so, with multiplication of the former and without surface reaction. The length of the application is reduced and also the duration of the treatment. The apparatus may be employed naked or covered with any of the series of screens as the requirements of the case demand.



FIGURE 1.

Fig. 1.³ This illustrates an angiomatous tumor on the forehead of a babe seven months old. It was soft, violet-red in color, full of blood. It could by pressure be reduced one-fifth in size, but pressure on the tumor caused pain, and when the child cried it took on a deeper color.

This tumor was treated by the "cross fire" method. The first treatment was made on 22nd March. On the 15th April a crust was forming at the periphery of the tumor, showing the result of inflammatory action. By the 3rd May the tumor had diminished to about one-half its size. Between the 6th and 30th of May nine further applications were made. During June and July radium was again used, and about the last of August the cure was completed.

Dr. Wickham writes:⁴ "Frequently we combined this 'cross fire' method with the 'filtering' method, and by these means were enabled to witness the dissolution of tumors, the disappearance of the throbbing as well as the loss of color of the angioma, which, after their giving way, have sometimes retained a surface contrasting only slightly in tint with the healthy tissues in the same region.

"But the specific action of radium is not limited to cancerous and angiomatous tumors. There is another variety of tumors, the Keloidan, which also derive benefit from it. In fact, without visible reaction, enormous cheloids may be made smooth, and the truly turgid appearance of certain complicated scars made by keloids disappear, to be replaced by a flat, scarred surface, much easier to conceal. Moreover, the specific action of radium has caused much of the pain which ordinarily accompanies cheloids to disappear.

"Our later observations have merely strengthened our first conclusions. In fact, it is without determining the secondary inflammatory reaction that these affections must be treated. By applications of very short length, from one to three minutes a sitting, with a large and powerful apparatus, we found ourselves able to cure, without irritation, localized pruritus and superficial neuralgias, especially that which follows the shingles. Here is an example:

"A baby a year old was suffering from a bad case of pruriginous eczema, which, to its parents' great despair, had spread over its whole face and scalp. For six months without any success I treated it vigorously by the ordinary means. The baby cried without ceasing, and slept badly. I decided to use radium. M. Degrais applied our powerful apparatus of exterior radio-activity, 580,000 and six centimetres in diameter, on each place,

the first day for one minute and a half, and for the same time on the following day. A fortnight later the mother wrote us that her baby was completely well."



FIGURE 2.

Fig. 2.⁵ This represents a large pigmentary tumor on the face of a child 11 years old. Its surface was ridged and of a yellowish brown color; it gave to the face a repulsive appearance. Application of radium was made for five hours on each place during three days. This produced an ulcerative reaction, which was followed by cicatrization. In two months the tumor had diminished fully one-half in size. Other applications were made for several hours on three consecutive days. Reaction was severe, but terminated rapidly. Additional applications had to be made from time to time. Three months after the completion of the treatment the tumor had entirely disappeared. The surface is now level and smooth, but there is some coloration of the tint of *café au lait*, and at two points the tissue is somewhat blanched.

Fournier⁶ has been investigating the claims of Wickham and Degrais in regard to the complete cure of vascular naevi under the action of radium, and found that their claims are substantiated. He says that the cure of extensive naevi without a trace of disfiguring scars renders the method destined to supplant all other technics where the cosmetic effect is of importance. A slight ulcerative action seems to be required for flat superficial

naevi, while deeper ones require stronger action. Prominent projecting naevi are best treated by weak doses, frequently repeated, which act without inducing appreciable reaction. There is no destruction of tissue to leave a defect, but the tissues are modified and repair proceeds normally, leaving a smooth, regular surface, somewhat paler than the surrounding tissue, but otherwise normal. The naevus loses its color after the reaction, from six weeks to two months approximately. For angiomatous naevi the exposures are short but frequently repeated, with longer or shorter intervals of suspension at the first sign of reaction. The entire course of treatment in this form may require several months.

Nagelschmit⁷ confirms the remarkable efficacy of radium treatment of naevi, which he asserts far surpasses in effect and convenience to the patient any other measure known. With pure 100% radium bromide a flat capillary naevus is exposed from five to six minutes, cyanotic naevi ten minutes, and protuberant naevi from fifteen to twenty. After nine days a brownish pigmentation is noticed, with slight exudation and scab formation, followed by local infiltration and superficial desquamation for several weeks.

About the fifth week the naevus gradually assumes the characteristics of normal skin.

He does not mention that he had employed screens between the pure radium and the skin, and consequently the soft beta rays may have created a greater degree of inflammatory action than would have occurred had the Wickham method been adopted.

Conditions which have been cured or benefitted by radium are numerous. Epithelial cancers, superficial ulcerative or non-ulcerative epitheliomas with dry surface, cutaneous ulcerations which show the character of malignancy and a tendency to extension—rodent ulcer—epithelial cancers which have undergone large surface ulceration, cancers of the mucous membrane, keloids, angiomatous tumors, pigmentary naevi, tuberculosis of the skin, eczemas, psoriasis, angiokeratoma, lichen planus, acne rosacea, sycosis, syphilis, varicose ulcers, papilloma, vegetations. In lupus also some appreciable advance has been made.

Radium has also been used with benefit in certain cases of exophthalmic goitre, and the gynecologists of Paris are now making use of it in selected cases of cancer, uterine fibroids, uterine hemorrhages and metritis.

Radium may be said to rank as a "specific" in a certain

sense, because erratic cell growths which constitute some types of tumor tissue are particularly susceptible to the influence of the rays.

REFERENCES.

1. Radiumtherapie par le Dr. Louis Wickham et le Dr. Degrais.
2. From address delivered at Belfast by Dr. Wickham. *B. Med. Jl.*
3. *Revue de Médecine.* Wickham et Degrais.
4. Drs. Wickham and Degrais. *Can. Pract. and Review*, December. 1908.
5. Radiumtherapie. Wickham et Degrais.
6. Vascular naevi. *Bulletin de l'Académie de Médecin, Paris* (*J. A. M. A.*)
7. Therapie der Gegenwart, 1909 (*J. A. M. A.*)

50 College Street.

CANCER OF TONGUE—RADIUM TREATMENT.

BY EDMUND E. KING, M.D., TORONTO.

In reporting the following case of malignant disease of the tongue treated by radium, I feel that it is due to the profession to state that in these early cases the treatment was not carried out in the same scientific manner that it is to-day. The different rays were not well recognized, nor the means of isolating one or other well known until within a very short time, consequently treatment was advantageous to the patient rather in spite of the fact of the use of all the different ray emanations than by selection of the proper ray.

In speaking of the treatment by radium it is well to appreciate the tremendous power that radium exerts. It is the only substance that is known to-day that is continuously parting with its component parts and yet not in any material or discoverable way lessening its power or bulk. It is seen under the Spenthariscope to throw out from a centre luminous bodies like meteoric showers, with an estimated velocity of 150,000 miles per second. It is very difficult for anyone to grasp any such figures as these, but, like the Roentgen ray, we are to understand that it is particles passing through the tissue lodging within it that produces the action that results in change from diseased tissue back to normal.

Briefly the case is as follows: J. W., aged 67 years, consulted me in reference to an ulcer on the left side of the tongue, which involved side of the tongue, floor of the mouth, and extended back to the fold of the palate, which was surrounded by a very hard edge, and evidently had been aggravated by a necrotic tooth. The sub-lingual gland was enlarged on that side to about the size of a large bean. I excised a small portion and had it examined, when it was reported as cancer. The extent of the growth, the involved floor of the mouth and the enlargement of the lingual gland, made it a case unsuitable for operation, but it appeared to me to be one very suitable for radium treatment. I had in my possession a tube of radium, the exact activity of which I cannot give, and began treatment with this at five minutes per sitting every other day for three times, then five minutes every day for ten times. By this time a change was noted in the anterior portion of the growth. The treatment was suspended for a week, and then resumed for five minutes

morning and evening for ten days, with marked improvement. The patient then passed out of sight for nearly a month, considering himself cured. The tongue had become supple, no disagreeable effects while eating, and during the period he resumed smoking rather in excess. I found that the greater portion of the ulcer had healed, but there still remained that very inaccessible portion around the palatal fold. Here we had considerable difficulty in holding the tube in place, but by perseverance we were able to fairly well accomplish this. I gave ten minutes twice daily for a week, and then twenty minutes twice daily for two weeks, with the result that a marked improvement continued. At this time the patient had the misfortune to break the tube of radium, and further treatment was suspended.

While this case cannot be recorded as a cure, it is reported as one showing a marked improvement under treatment. I have recently been able to procure another tube of radium, and may, if any portion of the growth remains, resume treatment.

DIAGNOSIS OF GASTRO-DUODENAL ULCERATIONS

By W. P. CAVEN, M.D., TORONTO.

By gastro-duodenal ulcerations I mean those forms of "simple ulcer" which are met with where the gastric juice flows, therefore situated at the extreme end of the esophagus, in the stomach, or in the duodenum above the entrance of the common bile duct.

Age.—Ulcer of the stomach is a disease of early adult and middle life, the majority of cases occurring between twenty and forty years of age, while the greatest mortality is found between forty and sixty.

Nearly all observers are agreed that women suffer more in this respect than men, or at least that a larger number of women come under notice for treatment. Brinton says two to one.

Duodenal ulcer is found to be most frequent between the ages of thirty and forty, but in this particular form of simple ulcer the majority of cases seem to occur amongst men.

It is instructive to note the relative frequency of occurrences of gastric and duodenal ulcers. I quite well remember in my student days regarding duodenal ulcer, apart from those following burns of the skin, as a great medical curiosity, whereas at every outdoor clinic we expected to see at least one case of gastric ulcer; but we now know, thanks to more careful clinical and laboratory methods, and to some extent to the surgeons, that duodenal ulceration is by no means a rarity. In fact, it seems to occur almost as frequently as gastric ulcer.

Thomson, of Edinburgh, in his report on fifty cases operated on for chronic ulcer, found twenty-two in the duodenum and twenty-eight in the stomach, and in the Mayos cases duodenal ulcer was met with perhaps a little oftener than gastric ulcer—98, 87.

In no disease have we more outstanding symptoms and physical signs than in many cases of gastric and duodenal ulcer. On the other hand, we see many cases where the signs and symptoms are very indefinite and the diagnosis may even only be forced on us by the occurrence of a grave accident, such as perforation or hemorrhage, or by the findings at the autopsy.

Pain, vomiting, hematemesis and melena may be regarded as the outstanding features of this trouble.

* Read at meeting of Academy of Medicine, Toronto.

PAIN.

Character of Pain.—Pain in some form is the most constant symptom met with, occurring in probably 90% of all cases; this in early cases may be described simply as a feeling of weight or fullness, which becomes as the trouble goes on a gnawing and burning pain or a cutting or tearing.

Time of Onset.—A study of the *time of onset* of the pain in relation to the ingestion of food is of diagnostic value, and perhaps also of some value in locating the site of the ulceration. In the majority of cases of gastric ulcer the pain comes on very soon (5-10 minutes) after entrance of the food into the stomach, and remains during the period of gastric digestion, and then gradually subsides. If the ulcer affects the pyloric ring alone, the pain does not usually commence until 1—2 hours after taking food, and in duodenal ulceration from 2—4 hours after. On the other hand, in ulceration of the duodenum, the pain (hunger pain) is often immediately relieved by eating; the explanation of this usually given being that the taking of food causes the closing of the pylorus, and this shuts off the acid from irritating the ulcer. Thomson does not accept this view, but suggests that the empty stomach moving towards the centre line puts traction on the duodenum and this irritates the ulcer.

Sometimes in gastric ulcer, where there is hyperacidity, we will find the patient relieved of pain soon after taking food, especially if it be albuminous.

Effect of different kinds of food on the pain.—Large quantities of food, or the heavier, coarser foods cause much more pain in gastric ulcer than do bland foods; whereas the character of the food does not seem to make much difference to the sufferer from duodenal ulcer.

Seat of the pain.—In gastric ulcer, the pain is usually referred to the centre of the epigastrium, and also through to the back between the shoulders.

Tenderness on pressure.—On pressure, two spots of tenderness can usually be made out, the epigastric and dorsal. The dorsal is situated to the left of the 8—10 dorsal spine, and usually appears later than the epigastric pain.

In duodenal ulcer the pain is usually seated to the right of the zyphoid.

VOMITING.

Vomiting is present at one or other times in a large proportion of cases; probably in 80%. It is, as one would expect, a more constant symptom of gastric than of duodenal ulceration.

In ulcer of the pylorus with contraction we find it a very constant symptom. The vomiting in these cases may be of the cumulative type, the patient vomiting at night all that has been taken in the previous 24 hours.

In gastric ulcer the vomiting usually occurs an hour or two after meals, when the pain is at its height, and, as a rule, the vomiting relieves the pain.

In duodenal ulcer the vomiting occurs at irregular intervals, with no special reference to time of eating, but very often in early morning.

HEMATEMESIS AND MELENA.

The escape of blood from the stomach or from the bowel is of strong diagnostic significance; perhaps 60% of cases of gastric and duodenal ulcer have vomiting of blood to a greater or lesser extent; the hemorrhage may be copious, the blood bright in color, arterial in origin, and quickly ejected from the stomach, or, again, the blood may present the character of the well-known coffee grounds, according to the length of time of its stay in the stomach and the consequent change in the hemoglobin by the Hcl.

On the other hand, the bleeding may be "occult," and the evidence of it only being detected after careful microscopic and chemical examination.

It is in a large measure due to these careful investigations that we have been able to more certainly diagnose ulcerated conditions. (Benzidin test.)

The escape of blood from the bowel, detectable by the naked eye or occult, is met with intermittently in perhaps half the cases of gastric ulcer, where vomiting of blood is a symptom; but the greatest percentage of hemorrhages from the bowel is met with in duodenal ulcer.

I have emphasized the intermittent presence of blood in the stools as being significant of simple ulcer as opposed to the constant occult hemorrhages in carcinoma.

EXAMINATION OF GASTRIC CONTENTS.

The presence in excess of free Hcl. is of great diagnostic significance. The presence of butyric and lactic acid is not of much significance; it is only an indication of stasis of gastric contents and not diagnostic of carcinoma.

The appetite is often not decreased, the patient taking less food by reason of the punishment that follows.

Constipation is frequently complained of.

DIFFERENTIAL DIAGNOSIS.

1. You will gather from what has been already said that one may first come clinically in contact with certain cases by reason of an accident, perforation, or profuse hemorrhage, the ulcer being of the latent type and causing no previous complaints from the patient. The diagnosis in such cases is comparatively certain, involving the differentiation from perforations due to other causes, such as appendix trouble or that produced by gall stones. I mention these two conditions, as I have seen them mistaken for gastric and duodenal perforation.

Profuse hemorrhage from the stomach does not, of course, necessarily mean simple ulcer. Here we have to exclude that from other forms of ulcer, tubercular, typhoid, etc.; also that which may be occasioned by indirect local causes which produce portal obstruction, such as cirrhosis of liver, or due to circulatory obstruction, as in cardiac diseases, or that met with in certain of the blood diseases, as pernicious anemia, leukemia, hemophilia, scurvy.

2. Many cases of chronic ulcer come first to our notice with all the well-marked cardinal symptoms as above described—pain, vomiting, hemorrhage.

Here the question that first arises is, Is this simple ulcer we are dealing with or is it carcinoma?

We consider the age of the patient—ulcer more frequently between twenty and forty; cancer at middle age or after; the pain of ulcer more intense, brought on very shortly after eating and immediately relieved by vomiting, as opposed to the more steady though less intense pain of cancer and not influenced by vomiting.

The appetite in gastric ulcer may not be impaired nor the tongue coated, whilst in cancer the appetite is almost invariably very poor and the tongue thickly coated. My own experience would lead me to place a great deal of value on these points.

Vomiting occurs in both diseases; in ulcer usually soon after eating, whilst in carcinoma no special relation to eating, maybe once a day or in two days, and of the cumulative character.

Vomiting of blood in simple ulcer may occur in large quantities and be bright red or coffee grounds color; in cancer the quantity is usually small and coffee-ground.

The finding of blood, gross or occult, intermittently in the stools is in favor of ulcer. In cancer, constant occult hemorrhage is what we expect.

In ulcer, we find in the great majority of cases hyperchlor-

hydria, and in cancer an absence of free Hcl., usually some lactic acid, and the Boas-Oppler bacilli.

Personally, my greatest difficulty in diagnosing between ulcer and cancer has been in some cases where we have obstruction to the outlet at the pylorus, with or without a palpable tumor, causing great dilation and stasis and cumulative vomiting. Here, the presence of free Hcl., perhaps in excess, and the intermittent finding of blood, points strongly to simple ulcer, as opposed to the absence of Hcl. and the constant presence of blood, as is usual in carcinoma. Some weight may be attached to the more cachectic appearance of the subject of cancer, showing debility and emaciation.

In a few such cases I have felt it wise to reserve my definite opinion until after the surgeon's exploratory examination, and even then not have my doubts removed. I have just recently had a case with the above symptoms. The abdomen was opened, and even then the surgeon was at a loss to say positively, but as there were two distinct tumors and one involved the duodenum along with the pylorus (a condition rarely met with in cancer), I would believe the condition due to simple ulceration and its consequences.

Lastly, we meet with cases which come under neither one nor other of the two clinical groups I have described. They present no aggressive symptoms or signs. The history merely suggests a dyspepsia; a weight at the epigastrium, gaseous eructations, or some regurgitation, along with symptoms which may be set down as being due to neurasthenia. A hyperacidity of stomach contents and occult blood in vomiting and stools will clear up our diagnosis. These cases are to be differentiated from gastralgia nervosa and hyperchlorhydria.

In gastralgia nervosa we have a spasmodic pain in the stomach independent of time of taking food; pressure relieves the pain. There are no tender points; vomiting, if present, occurs at no regular times, and there is an absence of blood in stomach contents or stools.

In hyperchlorhydria, heartburn and eructations are complained of, pain comes on two to three hours after eating, and is relieved by eating or by alkalis. There are no circumscribed tender areas as in ulcer, nor is blood, occult or otherwise, found in the stomach contents or feces.

NEURASTHENIA IN GENERAL PRACTICE.*

BY H. B. ANDERSON, M.D., L.R.C.P. (LOND.), M.R.C.S. (ENG.),
Associate Professor of Clinical Medicine, University of Toronto.

For the proper recognition of its importance, neurasthenia as a clinical syndrome had the misfortune of having been brought to the attention of the profession at an inopportune time. When Beard, in 1869, first described the condition and attempted to secure for it a footing in nosology, it was at the beginning of the period when the phenomena of disease in general were being investigated by the morbid anatomist, the pathologist, the bacteriologist and the chemist, and by them related to definite changes in the organs, tissues or fluids of the body. A disease, the morbid substratum of which was quite inaccessible to these means of investigation, and which depended for its recognition on diverse clinical manifestations, failed to impress the leaders of medical thought, and so received scant consideration from them. It is therefore little wonder that its very existence as a clinical entity was questioned, and that for years in Europe it was derisively designated the "American disease." This attitude of the leaders was reflected on the general profession, which has not even yet succeeded in freeing itself from early impressions. This is especially noticeable with reference to traumatic neurasthenia, where, in the absence of objective signs of injury, the existence of the condition is continually challenged by the legal profession, in which position they can usually obtain abundance of expert support from our own. This attitude is epitomized in the epigrammatic statement that the best cure for a case is \$5,000 damages. The remarkable improvement which sometimes follows this remedial measure at first glance appears to support the legal contention, but may usually be quite as satisfactorily and more charitably explained as being due to the removal of the worry and nerve stress incident to litigation, assisted, no doubt, by the beneficial psychic influence of having received compensation.

The same indefensible position is too frequently assumed with reference to the clinical conditions implied by nervousness, neurotic and functional disease, etc.; so much so that these terms are commonly associated in the minds of both physician and patient with imaginary ills, exaggeration or humbug. Patients, experiencing the reality of their sufferings, have become

* Read before the Niagara Peninsula Medical Society, Niagara Falls, Canada, August 30, 1909.

acutely sensitive to the *stigma* attached to these terms, and too often have lost confidence in our ability to understand their cases, and after drifting from one physician to another finally seek in nostrums or from quacks and irregulars the relief we have failed to give them. In this failure on the part of the medical profession lies the main reason for the existence and influence of Christian Science, osteopathy, pilgrimages to shrines, the recent Immanuel movement, and other popular forms of treatment. Based on ignorance of the nature of disease, in many cases fraught with danger to the individual and the community, and mixed with error and superstition as they are, the fact cannot be denied that in the functional neuroses these systems of treatment have frequently produced cures where the regular practitioner has failed. Physicians have tried to minimize the importance of these cures by pointing out that they were possible only in functional cases, we have exposed their fallacies and dangers, their ineffectiveness in organic diseases and have sought to control them by legislative measures. But notwithstanding our efforts, we have failed to convince thousands of people, and these not always the most ignorant or undiscerning, that these irregular systems are not more effectual in many cases than our usual therapeutic measures. To be quite frank with ourselves, have we not been guilty of too much self-complacency in minimizing the importance of cures produced by these systems, even if they have been only in functional cases? If an individual has been an invalid for years and a burden to herself and family, is a cure which has restored her to health and usefulness less real because the disabling condition was a functional one? Is it not time that we as a profession faced the situation fairly, changed our attitude with reference to these diseases, studied the scientific principles underlying the irregular systems of treatment to glean the element of truth contained therein and incorporate it in a plan of rational management? Only in this way will we remove a stigma now attached to our art and bring a large class of suffering humanity under our control.

It is first necessary for us to recognize in practice as we do in theory that nerve tissues, like all others, are subject to the baneful effects of overwork, excessive strain, toxic influences, deficient opportunity for rest and repair, perverted general nutrition and inherent hereditary weakness, and that these effects may be manifested by purely subjective symptoms, in the development of a morbid condition in which the patient's complaints are out of all proportion to any discoverable organic change to which the

symptoms can be referred. In other words, we must recognize that these patients are really ill and require the same serious consideration as those afflicted with demonstrable organic diseases.

When we consider the normal functions of the nervous system—psychic, motor, sensory and vaso-motor—and the extent to which they govern or are related to the activities of all the organs and tissues of the body, we may readily understand the manifold symptomatology resulting from the perversion of these functions occurring in nervous exhaustion. From the fact that neurasthenia has no demonstrable morbid anatomy, that the symptomatology is so irregular and widespread, its recognition by the ordinary means of diagnosis is often difficult. The complex tangle of clinical phenomena and epiphenomena is more readily unravelled when the symptoms are correlated, weighed and interpreted in the light of etiological factors which are known to be capable of producing the disease. If our investigation of the case, which should embrace not only the patient's systemic condition, but enquire closely into the routine of his daily life and environment, discovers *known efficient* causes of neurasthenia, we may *a priori* look for the effects and interpret the symptoms accordingly.

Neurasthenia may arise primarily from failure on the part of the nervous system to adapt itself to the stress of the patient's surroundings, or it may arise as an epiphenomenon in individuals suffering from some organic disease. A clear recognition of these two great subdivisions is of the utmost importance, not only from a diagnostic but a therapeutic point of view. The task of determining to which class a given case belongs is not always an easy one, and requires often the highest degree of clinical skill and the most patient examination. From the intimate relation which the nervous system bears to the functions of all the organs and tissues of the body, it is not remarkable that in nervous exhaustion clinical manifestations in the digestive, circulatory, genito-urinary systems, or other parts are of the commonest occurrence. These results of disturbed innervation may closely simulate and are often mistaken for primary local diseases. Thus we frequently see hyperchlorhydria or other form of digestive disturbance, so often symptomatic of neurasthenia, treated by dieting or other local measures, the primary trouble being overlooked, notwithstanding the fact that the large majority of digestive disorders met with in the routine of practice are manifestations of nervous exhaustion, and respond not to local treatment but to measures appropriate to the primary trouble. On the other hand, in predisposed individuals,

gastric ulcer, gallstones, chronic appendicitis, latent carcinoma, ovarian disease, arteriosclerosis, larval Graves' disease, latent tubercle, etc., may be the underlying cause of a host of nervous epiphenomena, which mask the primary condition, and unless extreme care be exercised, lead to serious errors in diagnosis and treatment. It is therefore obvious that a symptomatic labelling of a case as neurasthenia is a very incomplete diagnosis. How unfortunate and irrational it would be to recommend the rest cure or psychotherapy for the treatment of these secondary cases. The necessity for individualizing and making an etiological diagnosis is therefore apparent. In no condition is the statement more applicable that we must consider the patient and not the disease.

In both primary and secondary cases the personal equation of the patient is of paramount importance, and must be carefully estimated. Heredity and early training are the chief factors determining the nerve capital with which the individual is furnished to meet the requirements of later life. Some are born with a reserve of nervous energy which enables them to bear up under the keenest stress of the struggle for existence. Others from the beginning are on the verge of nerve bankruptcy, the balance turning on the slightest provocation. Between these extremes all grades of nervous stability exist. Health is maintained so long as the nervous capacity (personal equation) acting against the stress of surrounding conditions, is capable of meeting the demands made upon it. Broadly speaking, normal nervous function may, therefore, be stated to be a condition of equipoise between nervous capacity and environment. In a given case hereditary neuropathic tendency, hysteria, epilepsy, chorea, alcoholism, syphilis, the ties, etc., in the patient's antecedents are very important in relation to his susceptibility to nervous exhaustion. Of the two factors, personal equation and environment, the former is the patient's hereditary portion, and as such is beyond the power of therapeutic alteration. Speaking generally, it may be conserved or dissipated, according to the external conditions acting upon him. Environment is the only variable factor, and to it we must look for the exciting causes of the disease, and only in so far as we can modify it have we any power of therapeutic control. These facts, so well emphasized by Cohnheim, with reference to disease in general, appear at first glance remarkable, but they will stand close investigation. The great importance, therefore, of the closest study of the patient's environment is readily appreciated. In this connection we must recognize not only a physical but a mental and moral

environment as well. The latter has too frequently been lost sight of in the consideration of this disease. Its influence has received practical recognition by Christian Scientists, osteopaths and other irregulars, and has been utilized to good effect in treatment. The advocates of suggestion, hypnotism, psychotherapy, etc., have also appreciated its importance. There appears a danger in fact at the present time of going to the other extreme and of attaching too much importance to the purely psychic aspect of the neuroses. Consider, for instance, the statement of Dubois that "nervousness in all its forms is a psychosis." Such a conception appears to me to be Eddyism pure and simple. Nevertheless the teachings of Dubois are having a widespread influence on medical thought at the present time. This conception of nervousness would seem to ignore principles that are accepted as axiomatic with reference to other diseases. If a nervous system, weak by heredity or other cause is exposed to excessive demands upon its functions, as in nervous and mental overstrain, profound shock, worry, the depressing effects of financial, social, religious or domestic troubles; is further injured by the excessive use of tea, coffee, tobacco, alcohol or drugs, which these individuals crave, or by various auto-toxins; and because of the insomnia so constantly found in these cases, is deprived of the opportunity for rest and recuperation, need we be surprised that evidences of exhaustion develop and that this is manifested by a derangement of the host of functions normally dependent upon or controlled by these nervous tissues? To consider such a condition as purely psychic and requiring only psychic treatment is to overlook all the other etiological factors, the influence of which is constantly seen in practice. Take, for instance, the form of neurasthenia developing in white-skinned individuals in the tropics, due to the action of the actinic rays of the sun, from which dark races are protected by the pigment in the skin. Obviously what is required here is not psychotherapy, but an environment suited to the individual; or again, such a case as this: a sensitive young girl of somewhat nervous temperament, but in good health, became private secretary and stenographer to an exacting, nagging manager of a business. She worked long hours, at times in the evening as well as during the day; seldom had a day off; was subjected to hundreds of petty annoyances and the worries associated with the multitudinous details of her office work. In addition she interested herself during her evenings and Sundays in church work. In a short time she found herself continually tired, incapable of prolonged physical or mental effort, was depressed

and subject to attacks of "the weeps"; developed frontal, vertical and occipital headaches, digestive disturbance, loss of weight, irregular and profuse menstruation, etc. She found in tea a temporary relief and partook of it to excess; she was unable to sleep on going to bed, or when she did awakened frequently during the night or too early in the morning. She was eventually reduced to a most miserable condition, presenting in a marked degree the symptoms of nervous exhaustion. After a couple of months' rest and recuperation, with other means which the details of her case suggested, she was able to undertake a similar but less strenuous position, with a more considerate employer, and has since remained in good health. Another young woman undertook the duties she had given up with the first employer, and with similar results in the course of a few months. She also was cured by rest and a change to a business environment in keeping with her nervous capacity. I do not mention these as unusual cases, for I am sure scores of such, differing only in detail, have come within the clinical experience of all of you, but to illustrate that there are many factors other than psychic to be considered in neurasthenia, and which require adjustment before patients recover. Mental and nervous shock or over-strain, worry and the other deleterious influences before mentioned, tend to nervous exhaustion, in degree depending upon the original nerve capacity of the individual, the stress of environment and the duration of exposure.

Another point, it appears to me, has not been emphasized as fully as its importance warrants. During the clinical progress of a case of neurasthenia, numerous morbid systemic conditions appear, not as essential features of the primary disease, but as results of the functional derangement of important organs. Thus, from disturbed innervation, interference with nutrition, or from perverted metabolism we often observe loss of weight, anemia, oxaluria, phosphaturia, indicanuria, constipation and auto-intoxications, hyperchlorhydria, menorrhagia, etc. These epiphenomena complicate the clinical picture, and in themselves become causes of further trouble. In this way a vicious circle is established, in which primary and secondary conditions interact, tending to a continuance and exaggeration of both. Such cases obviously pass beyond the limits of purely a functional condition, which they may have been at the start, and for their relief the vicious circle must be broken by measures appropriate for not only the original disease, but usually for the epiphenomena as well.

Leaving these broader considerations, and dealing more

specifically with the symptoms presented by the disease, the latter may be classified as follows:

- (1) General symptoms.
- (2) Symptoms arising from disturbance of function of important organs.
- (3) Secondary symptoms arising from the vicious circle established.

The symptoms may be further divided into psychic, motor, sensory, vaso-motor and visceral, as might be expected from what has already been said.

The general symptoms are fairly characteristic:

(1) A sense of muscular weakness or fatigue, either constant or brought out by the slightest exertion. The patient is always tired, often more so in the morning than on going to bed. The dynamometer shows that this weakness is more apparent than real. It may disappear for a short time after meals, but returns on slight exertion. It is "that tired feeling" so much exploited by the quack and patent medicine vendor.

(2) Mental depression, irritability or despondency. These patients are frequently in the blues, and women especially are lachrymose. The way very trifling difficulties are magnified, mountains made of molehills, is astounding. In severe cases the extreme irritability, lack of resolution, incapacity for initiative or for following a consecutive line of thought or action, makes these unfortunates a sore burden to themselves and those with whom they come in contact. Morbid introspection and attempts to analyze their own symptoms leave them particularly open to the influence of auto-suggestion. They live in an atmosphere of doubt, in which every trifle becomes a serious problem. An excellent clinical picture of the mental condition is that of Julius Carling in "David Harum."

(3) Headache—frontal, vertical and occipital—of which the latter is most constant and characteristic. It is often a feeling of weight or pressure rather than of pain. It differs from most organic headaches in often being present on awaking, and decreasing towards night.

(4) Insomnia is a very constant expression of nervous exhaustion. It early manifests itself in inability to get to sleep on retiring, in restlessness or broken sleep, or in awaking too early, or in the worst cases, in a combination of these. After tossing about for hours until the early morning, the patient may fall into a deep sleep, from which he later awakens unrefreshed.

(5) Painful or tender areas along the spine (rachialgia), in the iliac regions, hypochondria, beneath the breasts or above and

to the left of the umbilicus, are very common. The iliac pains in women are often attributed to ovarian trouble, but that they are due to the general nervous condition is shown by the fact that they occur almost as commonly in male as in female neurasthenics. The painful area above and to the left of the umbilicus, usually associated with aortic throbbing, and often with extreme tenderness, is of very frequent occurrence. Though not commonly mentioned in text-books, it is at times mistaken for an aneurism, tumor, or localized inflammation. I have seen at least two cases operated on by surgeons, who could not be convinced that they would find only a throbbing aorta until they cut down and convinced themselves. During the past week, I have had a similar case under observation, referred to me by a physician in a western town, who suspected an aneurism. Osler, in his practice of medicine, refers to the condition as "simple dynamic pulsation." As a bruit is readily produced by stethoscopic pressure over the pulsating vessel, to the inexperienced, the simulation of aneurism may be close.

(6) In severe cases there may be loss of weight, almost as great as in diabetes, malignant disease or tuberculosis, and the frequent occurrence of profuse sweats often gives rise to the fear of latent tuberculosis. There are some authorities, in fact, who believe that in many of these cases, a latent tuberculosis does exist. While unable to deny this, the disappearance of the symptoms under appropriate treatment would incline one to believe that neurasthenia, *per se*, is capable of producing these symptoms.

To recapitulate, I would say that a sense of muscular weakness and fatigue, irritability, headache, insomnia, mental depression and loss of weight, taken together, are the commonest general manifestations.

Of the second class of symptoms, those arising from disturbed functions of important organs and systems, the cardiovascular, gastro-intestinal and genito-urinary are most important. Vascular throbbing, palpitation and arrhythmia are very frequent. The gastric phenomena are perhaps of greater clinical importance, constituting as they do the major proportion of stomach disorders which we meet with in the routine of practice. I believe I am inside the mark when I say that three-quarters of the dyspeptics who consult me are suffering from nervous exhaustion, and are amenable to treatment suitable to that condition rather than to measures directed primarily to the stomach. As before stated, hyperchlorhydria is usually of this origin. Painful sensations about the stomach, a feeling of a

lump or pressure in the epigastrium, the "all gone" and numberless other sensations are common. Gastric flatulency is often complained of. That it is not due to actual fermentation is shown by the fact that it may occur immediately after eating, before there has been time for fermentation, or even after a drink of water. I had once a woman patient who showed none of the stigmata of hysteria, who for months had spent sleepless nights belching up gas. She was cured by a week's isolation and treatment, and though this was four or five years ago, there has been no recurrence of symptoms.

Intestinal flatulency, with painful areas, as before mentioned, constipation, and mucus colitis are often met with. The frequent occurrence of indicanuria, pointing to intestinal auto-intoxication, should always be examined for.

Of the genito-urinary symptoms, I shall say nothing of the sexual neurasthenia so common after gonorrhœa, and so intractable. Irritability of the bladder, with frequent micturition, oxaluria and phosphaturia are all very common in neurasthenics.

Menorrhagia is very often an expression of perverted innervation in female neurasthenics. I wish to emphasize this especially because I believe its frequency is not appreciated, especially by surgeons and gynecologists. I have had several patients in the past year to whom operations for uterine or ovarian trouble had been advised, who recovered completely after a course of treatment for the existent nervous exhaustion. In this respect the gynecologists are the greatest offenders. I am convinced that in the majority of cases operated on for trifling lacerations and displacements, ovarian pain (so-called) and menorrhagia, the improvement following is due to the psychic influence, rest, isolation and diet rather than to the operation. In this connection, I would like to refer you to the article on "The Nervous Disorders in Women Simulating Pelvic Diseases," by Clara T. Dercum, in the *Journal American Medical Association*, March 13th, 1909.

The third class of symptoms arising from the vicious circle established as anemia, auto-intoxications, etc., has already been suggested, and requires no detailed reference.

In all cases the physician must be careful to distinguish hypochondriasis, psychasthenia and hysteria from neurasthenia, though the conditions are closely allied, may co-exist or overlap. The well-known stigmata of hysteria should be looked for—contraction of the visual fields, globus, loss of faucial reflex, areas of anesthesia, hysterogenetic zones, etc.

It is very essential also to exclude larvate cases of Graves'

disease, or hyperthyroidism. These cases are of frequent occurrence, but if the condition is borne in mind it can readily be excluded, as a rule.

I wish now to discuss briefly the therapeutic side of the disease, although much has been anticipated in what has already been said. Certain of the more aggravated cases require the services of specialists, with the hospital accommodation, specially qualified nurses and other facilities not at the disposal of the majority of general practitioners, out from the prolonged treatment required, expenses involved, and other circumstances, it is apparent that only the wealthy or well-to-do can be reached in this way.

It is evident, therefore, that the large majority of these patients must look to the general practitioner for counsel. Any system of treatment, to be satisfactory, must not only yield good results, but must be practicable in its application to the great mass of patients seeking relief. For this reason, the rest cure of Weir Mitchell and other elaborate and expensive methods carried out in special institutions, while at times yielding brilliant results, are beyond the grasp of the majority of cases met with.

If, in the majority of cases, the management of this disease is to be the province of the general practitioner, rather than the specialist, the former must either possess or acquire the qualifications which fit him for the duty. The first of these is a thorough acquaintance with the disease in all its bearings—its etiology and manifold clinical manifestations, as well as those of the other neuroses, with which it may be confounded. He must be truthful, but with tact; have sympathy, coupled with firmness; have faith and confidence born of knowledge; have patience, cheerfulness, kindness and resourcefulness. The physician who cannot secure and maintain the absolute confidence and co-operation of his patient, so, as to have his instructions obeyed without question or debate, will probably fail. So important is this that where it cannot be secured, one should decline to treat the case. Once obtained, this grip of the situation must never be relinquished, though to maintain it often taxes one's powers to the utmost. Having adopted a plan of treatment, the rationale of which is explained to the patient, whose willing co-operation is obtained, this must be followed out to the letter. To vacillate, show doubt or irresolution, or even to make trifling changes at the suggestion or solicitation of the patient or his friends, is to invite failure. In giving instructions, the physician should be quiet, firm, clear-cut and specific.

The examination of the patient is in itself a most important therapeutic measure. It should be so systematic, detailed and thorough, so as not only to put one in possession of all the essential facts, but to impress the patient with the completeness of one's knowledge and insight into his condition. His doubts and fears may thus more readily be dissipated, and a happier mental state produced. Complete notes should be taken at the time of examination. These are necessary for future reference and comparison. The investigation should include the patient's antecedents, personal history, habits and details of his past life, with special reference to known causes of the disease. The possibility of secret worries, which the patient is loath to admit, must not be overlooked. The patient, on his part, must thoroughly unburden himself to his physician, concealing nothing. At times an incident which he has either forgotten, or the importance of which has been overlooked, may have been the starting-point of the train of nervous symptoms. A striking instance of this sort came under my observation some two years ago. Ten years previously a lady of nervous temperament, but in good health, was living next door to a young woman who either fell or jumped from a second-storey window to the cement walk between the two houses, receiving injuries from which she died in a few days. The lady in question had heard the fall and groans of the patient, and had seen her carried away in the ambulance. Investigation of her case showed clearly that symptoms, which culminated in a prolonged nervous breakdown, followed the mental shock produced by this single occurrence. Under the Weir Mitchell treatment she made a good recovery, which has been maintained.

In some cases a subconscious impression of some previous event may, unknown to the patient, influence his mental condition, and thus cause or perpetuate psychoneurotic symptoms. The method of psycho-analysis, elaborated by Freud, by studying and questioning the patient, learning of his dreams, etc., or by resort to hypnotism, seeks to discover the hidden idea or emotional state responsible for the mischief. Of the application of this method I have no personal knowledge. It is undoubtedly of value in certain obscure and difficult cases, but requires special training. Dr. Ernest Jones, of Toronto, has used this method in a case of hysterical auto-psychic amnesia of mine, with excellent results. (*Jour. of Abnormal Psychology*, Sept., 1909.) It is, however, in my opinion, neither practicable nor necessary in the large majority of cases. Psycho-analysis is at once diagnostic and curative in its operation.

A proper investigation requires both time and patience, and no opinion should be expressed, and no plan of treatment adopted, until it has been completed, even if several consultations are required. Reference has already been made to the value of psychotherapy. In an irregular way, its importance has been appreciated, and it has been practised by successful physicians in all ages, though at times unconsciously. In recent years, it has been studied more systematically, more elaborated, and more definite rules formulated for its application. The psychic influence of a detailed investigation, followed by explanation of the various symptoms, is very great. The patient feels that his physician's efforts are being directed towards something definite and tangible, and so his previous fears and despair are replaced by courage and hope. Explanation, encouragement, persuasion, suggestion and re-education are the psychic influences commonly resorted to. These measures undoubtedly act best when they are coupled with a change of scene or with rest and isolation, which may be necessary in the severer cases. Time will not permit my entering into details, for which I would refer you to the writings of Dubois, Weir Mitchell, Barker, etc.

The plan of treatment adopted in a given case will depend upon its severity, the causes and the patient's circumstances. In many of the milder cases the thorough investigation, with shorter hours of work, more hours for rest and relaxation, elimination of tea, coffee, etc., removal of causes of worry, correction of gross errors in diet, with possibly a short holiday amid congenial surroundings, will effect a cure. In any case, as far as possible, we should adopt a plan within the patient's means, or we may add a serious worry to those he already has. Apart from their psychotherapeutic effect, medicines occupy a very secondary place, but some of them may be of real service. In irritable cases, a short course of bromides may assist. In this class I have often found strychnia and the glycerophosphates to do harm, though they may be of benefit in some of the atonic conditions.

Where constipation exists, mild aperients, given to produce a daily evacuation, are of course indicated. After a preliminary or occasional mercurial and saline, I have found a good preparation of cascara the most generally useful. Hypnotics are often very helpful, but should only be given occasionally, or to break up a spell of insomnia. I have found sulfonal gr. xv. or xx., in a glass of water an hour before bedtime, repeated in four or five nights, if necessary, very useful. This may in part be due to the fact that, having most faith in it myself, I succeed

in giving the patient more faith and confidence in its use, and so produce a mental quiet conducive to sleep. One should always explain that it will act for several nights. Insomnia being itself a symptom of nervous exhaustion, tends to improve as the patient goes on to recovery. The frequent use of hypnotics over long periods is to be strongly deprecated.

Where anemia exists, mild preparations of iron, as pil. Bland Co., are indicated after the bowels have been got to act satisfactorily. In the nervousness of the menopause, ovarian extract, whether acting by suggestion or not, has appeared to me of benefit.

As far as possible I have given up strict diet lists in these cases, as I believe they often do harm by encouraging gastric introspection. Gross errors should, of course, be corrected, but a good plain, nutritious diet allowed. The breakfast food crank usually finds little comfort from his fads. It is better to tell the patient the few things he must not eat, and let him take what he does with courage and assurance. Fluids at mealtimes should be limited, and a sufficient amount prescribed an hour before meals, between meals and at bedtime. The practice of excessive water-drinking is as harmful as too little.

Hydrotherapy is often of value, the most easily applicable form being the cold morning dip in those who can take it, followed by brisk friction until a good reaction is secured. In cases where this is not well borne, cold affusion to the spine, followed by friction, may be substituted.

Massage, properly given, is often of value, but must be used with discrimination, as it is at times followed by a feeling of exhaustion, and appears to aggravate the symptoms. It is of course of most use in bed patients. I have seen no direct benefit from electricity in any form, though no doubt its psychic influence may be of value, especially in institutional treatment.

In the case of office patients, they must be seen at regular intervals—at first twice or more a week—and the progress reviewed. For this reason, I have found it a good plan to explain that medicines will require to be changed from time to time, and this should be done, even if merely placebos are given. This ensures frequent opportunities for applying psychotherapeutic methods—encouragement, explanation, persuasion, etc., and ensures continuity of treatment. In non-isolated cases, I always insist that the patient shall not discuss his symptoms with anyone except myself.

It is well at the beginning of treatment not to make extrava-

gant promises, but to explain that time, patience and hopefulness will be required, and that ups and downs may occur, the same as in healthy individuals.

While, in milder cases, readjustment may be brought about in a short time, in severe ones a year or more may be required.

In severer cases, rest and isolation away from home, with an experienced nurse, and daily visits, even for a fortnight or a month, is of great service. Travelling is not usually well borne.

In the severe cases, especially in women, the rest cure of Weir Mitchell gives the best results, though care is necessary in the selection of cases. This can never be carried out successfully at home, but requires a complete separation from previous surroundings, with specially trained nurses. General hospitals are usually not satisfactory for these cases, unless special quiet wards are provided.

In this paper I have attempted, though in a disjointed and fragmentary way, to suggest certain considerations and procedures which have been of practical value in dealing with this important class of patients. The fundamental principle in treatment should be the readjustment of the patient's environment—physical, mental and moral—so as to secure conditions in keeping with, or favorable to, his nervous capacity. The essential or hereditary neurasthenic, who develops symptoms of the disease under the most favorable circumstances, presents the most difficult problem to the therapist, as the underlying cause is beyond control, and the limits of adjustment are very narrow. The despair of the therapist is the victim who has no faults to correct, or no bad habits to forego.

THE THYROID GLAND—ANATOMIC, PHYSIOLOGIC, PATHOLOGIC, THERAPEUTIC FACTORS.*

BY DR. JOHN HUNTER, TORONTO.

Anatomic Factors.—The anatomy of the thyroid gland presents many interesting features. Standard works on anatomy give very full descriptions of this gland, and this knowledge should be supplemented by a careful study of the organ during dissections of pathologic specimens from the operating table, as well as of the gland from the lower animals. Each of the two lobes is divided into a large number of small lobules, which are suspended in a network of connective-tissue fibres. The lobules are made up of follicles, which rest on the walls of the lymphatic spaces, and on the blood-vessels. The secretion from the cells is a viscid, amber-colored fluid, known as colloid material.

The thyroid is very vascular. The superior and inferior thyroid arteries and veins are quite large, and follow very tortuous courses. The lymph vessels empty into the thoracic duct and right lymphatic duct. The nerve supply is from the pneumogastric and cervical sympathetic.

There are accessory glands, known as parathyroids. These vary much in number and in their location.

The thyroid is a ductless gland. It is found in embryonic life, and is more active in function during youth and adolescence than in later years. The secretion contains two substances—iodine and phosphorus. From the union of iodine and globulin iodothylin is formed, and the amount of the latter present varies with the food, season and species of animal. It is said to be less in goitrous districts.

PHYSIOLOGIC FACTORS.

In the past, many hypotheses have been advanced as to the function of the gland, e.g., mechanical, protective, short circuiting a portion of the blood flowing toward brain, exercising some influence over sleep, sex functions, emotions and metabolism.

Congenital absence, morbid conditions, removal of the gland, or of the accessory parathyroids, is followed by a peculiar train of symptoms.—dulness, apathy, muscular weakness, impaired development, twitching, tremors, tetany, spasms, contractions, paresis, paralysis, paresthesia, anorexia or voracity,

* Abstract of paper read at Academy of Medicine.

anemia, leucocytosis, malnutrition, edema of eyelids and face, roughness of skin and loss of hair. A few, or many, of these may become well marked. Pressure causes contents to pour out into surrounding spaces. The secretion is increased by use of pilocarpine. It may be carried by the lymphatics into the general circulation, or absorbed directly by the capillaries. The secretion seems to be stimulated mainly by chemical influences exerted through the blood. The functional activity of the secretion is very much influenced by the amount of iodine present.

The morbid conditions, known under the title of cretinism and myxedema, are due to the absence of thyroid secretions, or to morbid changes in it. The classic signs and symptoms of these pathologic conditions are: Imperfect development of body and mind; body stunted and dwarfed; head large, flat on top, spread out at sides, narrow in front and broad behind. The face is usually broad, stolid, and expressionless; forehead low and broad; nose broad, short, depressed at root; cheekbones stand out, and the skin is loose and flabby; complexion pale, sallow, waxy; the lips coarse, perverted and protruding; hands chubby; fingers short and thick; skin thick, dry, brawny, rough; nails marked by red, white and blue segments; perspiration rare; temperature subnormal; mental apathy, idiocy.

There are two hypotheses in regard to the action of the thyroid secretion, viz.: (a) Action on metabolism, (b) or action on some systemic poisons. In regard to the former, "it seems possible that a thyroid may be ineffective, either by providing too little of the normal iodothyroglobulin, or by producing thyroglobulin poor in iodine." In respect to the second hypothesis, viz., that of neutralization of some poisons, there is but little known. It is assumed that, as the lymph passes through the gland, toxic substances are broken up and enter into more harmless compounds with the iodine. An injection of iodothyryn exerts a specific influence on the entire nerve supply of both heart and blood vessels.

The function of the parathyroids is somewhat analogous to that of the thyroids, although their removal is quickly followed by tetany and death.

PATHOLOGIC FACTORS.

These factors are intimately associated with the morbid conditions found in cretinism, myxedema and exophthalmic goitre. The signs and symptoms of the first two have been given already. The most characteristic symptoms present in exophthalmic goitre are "exophthalmia, tachycardia, tremors, muscular weakness, nervous excitability, vertigo, retarded movement of upper eye-

lids, retraction of upper lids, paroxysmal dyspnea, intermittent vomiting, diarrhea, sweating, or mental depression, psychic excitement, mental fatigue. The conditions found in cretinism and myxedema are due to an absence of a sufficient supply of the normal secretion. Exophthalmic goitre is due to an excessive quantity of the secretion. The former condition is known as hypothyroidism, the latter as hyperthyroidism.

The thyroid may become infected in diphtheria, scarlatina, measles, or rheumatism. Goitre is most frequent in first year; then from eleventh to fifteenth years. It may be endemic. It can be produced experimentally. The most common pathologic changes are parenchymatous and adenomatous proliferation, and the presence of cysts.

THERAPEUTIC FACTORS.

Prophylactic measures merit strict attention. When hereditary taint appears, the children should be placed under the best possible sanitary conditions. Outdoor life, well-ventilated rooms, abundance of wholesome food, and in cretinism and myxedema, the early administration of a reliable thyroid extract. The extract may be given in small doses—half a grain or a grain, frequently repeated—or larger doses at longer intervals. The excessive, or too prolonged use of the extract has to be guarded against. Co-existent morbid conditions, such as anemia, chlorosis, diarrhea, tuberculosis, syphilis, constipation, menstrual, nervous, or vascular disturbances require specific treatment. “In the various conditions of vasomotor disorders, the internal secretions, as represented by thyroid, parathyroid, thymus, adrenal and ovarian preparations, aided by some such drugs as the calcium salts, the barium salts, pierotoxin, ergot, digitalis, strophanthus, cactus, aconite, veratrum, the nitrites, hyoscyne, atropine, assafoetida, musk, sumbul, valerian, camphor, and strontium bromide, are to be used, choice being made amongst these various agents, according to the particular group of symptoms that is to be dealt with.”

The digestive ferments; lavage, purgations, intestinal antiseptics, baths, hot and cold douches, rest, passive and resistive movements, exercises, have value in the treatment of these morbid conditions.

Dietetic, hygienic and medicinal measures may fail in effecting a cure, or in retarding the progress of the morbid conditions. In such an event, surgery comes to our aid, and in few fields has it achieved greater success. Unless the patient's health is already too severely impaired, surgery offers a practically safe and effective cure.

THE DOCTOR.*

BY THOMAS SPARKS, M.B., ST. MARY'S.

There is an old and somewhat stale proverb which I am sure you all know, that it is always the "unexpected" which happens. Let me hope that you will not be unduly disappointed if that proverb be once more verified in our pleasant little medical gathering here to-day.

I am aware that it was announced that I would read a paper on "Diseases of the Prostate" at this meeting, but I hope, nay, I am sure, that you will all pardon me if, standing as I do on my old camping-ground, on the spot where, vulgarly-speaking, I first hung out my shingle, in the neighborhood where a quarter of a century of the best years of my life was spent; if, after forty-two years of practice, forty-two years of fighting the fight of life against death, of groping often and guessing in the dark, of manifold failures and some successes, my mind should grow for the moment somewhat reminiscent, and, grasping things more in their entirety than in part, I should put aside every subject of disease that afflicts either the son or daughter of Adam—be it prostatic or otherwise—and, turning away from the patient, with the thousand and one ills that his flesh is heir to—real or imaginary, I should turn for the subject of my ten or fifteen minutes' paper to a much more congenial theme—the Doctor himself. And indeed, gentlemen, what more appropriate or fitting theme could be chosen? Pill and potion and powder sink into utter insignificance itself in their interest as a subject when compared with their vendor. Modest as we are as a profession, I feel that a few minutes devoted to an honest examination and appreciation of the physician himself may not, even at a meeting of this kind, be altogether amiss.

Amid the thousand duties and callings of the busy world in which we live—varied, indeed, as they are in their importance and in their responsibilities—his duty it is to guide the frail bark of humanity over the great ocean of life into the port of health and safety, sometimes, thank God, amid the full light of day, but often amid the twilight, and oftener still amid the darkness of night, with only here and there a star to guide amid the rocks and breakers which beset the way.

More than once it has been my fortune, in making the trip

* Read before the Oxford County Medical Association, August, 1909.

down our own St. Lawrence from Kingston to Montreal, through the magnificent scenery of the Thousand Islands, to make the exciting passage of the Lachine Rapids. I well remember, as I stood on the deck of the little steamer, watching as she slowed up for a few minutes, the grim old Indian pilot come aboard. He alone, they said, knew the intricacies of the channel we were about to pass. I saw the captain give the wheel into his hand and silently take his place at his side. I saw the pilot, with watchful eye fixed on some spot in the far distance, with steady hand, guiding the careening boat through the boiling and foaming waters, past rocks flung athwart her way, and where she seemed to me to tremble on the very verge of destruction.

And often I have thought since then that no man better than that pilot voiced forth the mighty responsibilities, both of life and happiness, that lie on the shoulders of the men of the profession to which we belong.

Let us then for the moment drop this furbishing of our weapons of warfare, which is so usual at meetings of this kind, and, "lining up," as it were, with other men and other callings on the battlefield of life, let us try to get ourselves, both professionally and individually, into proper perspective with the rest of the world.

And, first, let me say that among the members of the so-called learned professions, "the doctor" alone approaches most nearly that "Time-Spirit" or "Zeit-geist" as the Germans call it, which is abroad in the world to-day. Trained, as he necessarily must be, in science for the proper knowledge and practice of his profession, he is, so to speak, abreast with all the marvellous discoveries and thought of our age. He alone, scientifically speaking, has an adequate grasp of the laws of the universe in which we live, whether they pertain to animate or inanimate matter. His hand alone is upon the pulse of nature, and his ear alive to her teaching.

The lawyer, indeed, far surpasses him in his knowledge of human law, and as a valuator of human testimony, but he has not that working acquaintance with the great laws of the universe which gives a cosmopolitan grasp of the world situation.

The theologian, trained in all the lore and beliefs of what may be called the world's childhood, is necessarily, more or less handicapped by such training, and too often, alas, by the exigencies of his creed as well.

The doctor, it seems to me, is better equipped mentally, both by knowledge and occupation, than men of either profession, to grasp and to deal with those great questions of life, mind and

destiny which have ever been the enigmas of the past, and are still the puzzles of the present.

Need I tell you that the doctor has ever been a leader in the van of the world's progress, ever an interrogator of nature, an unraveller and an interpreter of her secrets, and ever a philanthropist as well, because he brings all the wealth of knowledge he has won to lighten the pain and suffering of a disease-cursed world.

There is no side of the intellect which his profession does not call into play; no region of knowledge into which either its roots or its branches do not extend. Like the great Atlantic, between the two worlds, the old and the new, its waves wash the two shores of the worlds of matter and of mind. He alone, among men of the learned professions, seems possessed of that "divine dipsomania" which is forever athirst to drink of those hidden springs of knowledge which lie concealed in the breast of nature, and which, one by one, it is his to reveal and bring forth like the "leaves of the Tree of Life, for the healing of the nations."

To him, indeed, in these modern days at least, it may truly be said: Thou has given sight to the blind; thou hast made the lame to walk and the dumb to speak, and on the pallid face of disease thou hast set the rose of health; "thou hast given thy beloved sleep," and wrapped in happy dreams the throbbing nerves of pain.

In this great beehive of a world of ours, with its myriad occupations and activities, if we measure men, not by the paltry standard of dollars and cents, but by that higher ethical standard which God has placed within the breasts of all of us, that sublime standard of duty which has been crystallized by the universal voice of humanity into the "Golden Rule," what nobler calling has the world than the doctor's, and whose responsibilities are greater than his? Indeed, so varied are his responsibilities, and so different from those of other men, that it is hard to make a comparison. Other men may seek and choose their task; the doctor must take pot-luck of what comes. Be it prince or be it pauper, in palace or in hovel, he must give of his very best, both in time and attention, with often the scales of life or death hanging upon the decision of his judgment or the skill of his hand, and many a time no recompense for his services save the thanks and gratitude of the poor and helpless.

Other callings have their hours of labor and of rest. The doctor, like the watcher upon the walls of Zion, is always upon duty. No hour so untimely, no night so stormy and so tempestuous that he may evade the call of suffering humanity. To

him every suffering mortal is God's creature, needing help, so forth he goes, however weary, to do battle with death.

Honestly speaking, where in all the realm of human endeavor is there to be found more genuine self-sacrifice, more true heroism, more real philanthropy than is seen in the life of the ordinary doctor, persistently denying himself rest and sacrificing often health and sometimes life upon the altar of duty? And if we turn aside for a moment to look at the importance of his calling—if human life and health be indeed the world's most precious freight—then, whose calling can exceed in dignity his who has it in charge—the Doctor? “He was there at your birth, when you were cast upon the bosom of nature like a helpless shrimp upon the shore by some ocean storm. He heard your first wail and soothed your earliest pain, and his hand was the one that first gave you to your mother's loving breast. And all through life, as has been eloquently said, “he holds your hand and guards your steps and tends and cheers you in your hours of sickness and distress.” He knows your very life secrets, and shields you from the voice of slander. And when at last the grim rider, “Death,” on his pale horse, comes to hush forever your throbbing heart, the doctor is there to quiet your pain, to smooth your pillow, and to make the path down to the “Valley of the Shadow” more easy to bear. And ah, how often, too, the touch of his hand is the last you feel, his voice the last you hear, and his face the last your dim eyes can sense, before consciousness fails and memory fades, and you drift away, alone, into the shoreless ocean of that great beyond, whose waves roll all around this world of ours.”

And though he stands, and ever must stand, powerless and helpless in the presence of the King of Terrors, yet it is well in his conscience to know that he has done his best; so, bowing his head in sorrow, he grieves with those that grieve, then goes forth to battle again with death in other homes, to other defeats and to other victories.

In this complicated modern life of ours, where “knowledge is, indeed, power,” the doctor is in some ways a very king among men. “He holds the world's ships in quarantine till he says that they may come ashore. No prison bars can lock him out, no court can unseal his lips. Men flee away and leave the city almost a desert when he raises the yellow flag, and they fall on humble and grateful knee when he holds aloft the banner of the Red Cross.”

“If he be, indeed, worthy of the profession he bears, by the simplicity, the nobility of his life, and by his devotion to his

kind, he wins a high place in the hearts of men, and his knowledge gives him a seat in the 'Temple of Wisdom,' even though his wealth be not of gold nor lands, nor in princely homes which smaller men do seek. His dower is to know, and to help, and to heal."

Though at his best and highest, a very personification of that sublime passage, spoken of another, that he came "not to be ministered unto but to minister," yet by his ceaseless toiling to prolong the lives of others, he shortens his own. Neither the loathsomeness of disease nor the dread of contagion can quell his zeal for the furtherance of knowledge in the service of humanity, and, oftener than we deem, his is indeed, the martyr's crown.

"I know not what the doctor's Sunday religion may be—to what sect he may belong, or at what altar he may bow the knee—but this I do know, that oftenest, perhaps, the working week-day religion which lies deepest in his heart is an agnostic, creedless, humanitarian devotion to suffering humanity. The scales alone of Mercy and not of Justice are in his hands, and his is the divine commission to go "forth and heal"; nor is he limited to the "lost sheep of the house of Israel." His name may be on the church books of some particular denomination, but his soul is too wide for such narrow bonds. In the words of one of the world's great men, he says:

"The world is my country; to do good, my religion."

Men of all creeds and colors are alike to him. They are all but the creatures of heredity, education and environment, who follow, as they can, the light which has been given to them, and all, we hope and trust, will reach the same rest.

None better than he can realize the truthfulness of these lines of one of England's deathless poets:

"Our little systems have their day;
They have their day, and cease to be;
They are but broken lights of Thee,
And Thou, O, God, art more than they."

To the thoughtful doctor's eye, all life comes from God, and returns back to God again. In Him all life "lives and moves and has its being," and no one creed alone is keeper of the pearly gates nor holds alone the keys of the portal of the "city not made with hands."

One word more and I have done. The ideal doctor, and such alone I have been trying to describe; and such, too, I trust we are all at least striving to be, cares but little for what the world

commonly calls success. What is success? Success is the satisfactory accomplishment of that which we have undertaken. To the moralist it means a blameless life; to the financier it means wealth; to the politician it means office; to the physician, in a worldly sense, it may mean wealth or fame, but in the highest and noblest sense it means a life spent in the alleviation of human suffering. It means a life of perfect honesty, both with yourself and with others.

To some men it is sufficient that they are esteemed by their fellow-men. To others, a true and genuine self-esteem must come first. To some men a good reputation is the all in all. To others, character is the first aim in life. Reputation, after all, much as it is to be desired, is only what others think of us. Character is what we really are. It is what, in our deepest hearts, we think of ourselves.

We must aim high to reach the ideal. I know that the ideal of anything is perfection, and I cannot, perhaps, quite imagine a perfect doctor; yet, as an aspiration towards it, I would suggest—an honest man. There may be a kind of honesty which is "the best policy," but it is not honesty from principle. I do not believe that the doctor who is honest from principle will always rank very high in Bradstreet's. His principles may interfere with many a clever side-step towards wealth, or even towards the achievement of what the world calls fame, for the modesty which is ever the companion of honesty will prevent him from blowing the brassy horn of self-praise. He observes perfect propriety in little things as well as great, not because it pays, but because it is consistent and right. He will not tell a child that the medicine "is good" to get a nauseous dose down its throat, nor by cunning, underhand ways lead people to discredit the ability of a brother physician. He does not knowingly exaggerate the gravity of the cases under his care, nor does he assume that owl-like look of wisdom which is so much more effective with the public upon occasion than any frankness of speech would be. Even though the public be composed, as Carlyle somewhat cynically said, of a large "plurality of block-heads," and notoriously gullible in medical matters, yet he does not tie "policy" to the apron strings of "principle" in his dealings with them.

I am sorry to say that perfect honesty in medicine is not always a "paying proposition." An honest doctor must not always expect to win wealth, nor to walk through life upon thornless paths, nor to sleep upon downy beds of ease. He must not always even expect to get credit for being honest, and often

his word will not be as convincing as the egotistical brag of the bombast. Still, even though it may pass him by, this wicked, hypocritical world of ours bows its head in genuine homage and respect when it meets an honest man.

Be not cast down. Struggles, after all, are what make the man, and the end of the journey is determined in advance by the direction in which we travel.

Touched by the pathos of human life, the shadows that fall on every heart, the thorns in every path, the sorrows, the sickness, the pain that ever lie between our mother's arms and death's embrace, the ideal doctor will ever place the service of humanity before that lust of gold which so often impoverishes the soul while it enriches the pocket. Surely gold only impoverishes!

I remember once, years ago, in the mountains of the West, watching men wrench the yellow dross from the miserly clutch of the sullen rocks. When I saw the land, treeless, shrubless and flowerless, it flashed on my brain that gold has the same effect on the soil that holds it as it has on the heart of the man who labors and toils for it alone. It blights the heart as it does the soil, leaving it without the flower of kindness or the blossom of pity.

I said that we must be honest. But honesty itself is not enough. Along with it must go tact, temperament and training, that happy trinity of qualities which are the very essentials of the ideal physician. Tact, that wonderful skill in appreciating and accomplishing, which often distances talent itself in the race of life; temperament, that "gift of the gods," that divine magnetism, which projects us intuitively into the hearts of others and draws the hearts of others to us; and training, that ceaseless girding on of the arms of our profession through long years of constant study and experience. These things, gifts of nature and of knowledge, must be the wreath around the ideal doctor's brow.

Thus we look at him in his strength and in his weakness, in success and in failure; sometimes snatching life from the grasp of death like a brand from the burning; sometimes standing by the couch of sickness, full of knowledge, yet powerless to save; sometimes with clearest vision, sometimes puzzled either to know or to do; rejoicing over success and grieving over failures and mistakes, too, which often, alas, mean so much.

And so the true doctor lives his life with content, and works out his destiny with patience and boundless charity to all the world, lifting, as he can, the burden of pain and sickness from

the shoulders of men as they journey on their way to that final catastrophe which staggers our reason, shocks our affections, and so far defies explanation.

All life, it is well said, ends in a tragedy at last. Towards that tragedy he, too, journeys with his kind, and at last he, too, falls before the foe he has battled with so long.

The doctor has seen humanity both at its best and at its worst. He has seen it without its mask and without its shield. He has hid beneath the cloak of charity many a dark blot of weakness and of sin. He has weighed it in the scales of mercy, not of justice, aiding it in its struggles for help, and pitying it in its griefs. He has been perhaps nearer to its troubled heart than any, excepting the "Man of Galilee." He has heard confessions which never fell upon the ear of either minister or priest, and which will never be breathed into the ear of either calumny or slander.

And when life's journey for him at last is done, and the end comes—"Twilight and evening bell, and after that—the dark"—mine be it, and not only mine, but everyone's within sound of my voice, to have some such finish to our lives as is here so finely described in Will Carleton's beautiful poem:—

"There's a gathering in the village, that has never been outdone
Since the soldiers took their muskets to the war of sixty-one:
And a lot of lumber wagons near the church upon the hill.
And a crowd of country people, Sunday-dressed and very still.

Now each window is pre-empted by a dozen heads or more,
Now the spacious pews are crowded from the pulpit to the door;
For with coverlet of blackness on his portly figure spread,
Lies the grim old country doctor in a massive oaken bed.

Lies the fierce old country doctor,

Lies the kind old country doctor,

Whom the populace considered with a mingled love and dread.

Maybe half the congregation, now of great or little worth,
Found this watcher waiting for them when they came upon the
earth;

This undecorated soldier, of a hard, unequal strife,

Fought in many stubborn battles with the foes that sought
their life.

In the nighttime or the daytime, he would rally brave and well,
Though the summer lark was piping, or the frozen lances fell;

Knowing, if he won the battle, they would praise their Maker's
name,

Knowing, if he lost the battle, then the doctor was to blame.

'Twas the brave old virtuous doctor,

'Twas the good old faulty doctor,

'Twas the faithful country doctor, fighting stoutly all the same.

When so many pined in sickness, he had stood so strongly by,
Half the people felt a notion that the doctor could not die;
They must slowly learn the lesson, how to live from day to day,
And have somehow lost their bearings—now this landmark is
away.

But perhaps it still is better that his busy life is done;
He has seen old views and patients disappearing one by one;
He has learned that Death is master both of Science and of Art;
He has done his duty fairly, he has acted out his part.

And the strong old country doctor,

And the weak old country doctor,

Is entitled to a furlough for his brain and for his heart.

Editorials

WESTERN FEDERATION.

We are publishing in this issue a report of the proceedings at the Banff meeting, September 28th. We must congratulate our friends of the West on the fact that they have done more in a few months in the direction of Dominion Registration than Ontario, Quebec and the Maritime Provinces have accomplished in twenty-five years. There is something definite, clean cut and business-like in the resolutions passed at this meeting. Such methods of doing something, instead of looking old and wise and talking platitudes, are rather inspiring, and a study of them may do us slow folk in the East a lot of good.

We feel certain that the majority of the profession of Ontario will regret that this Province could not have taken a more active part in the negotiations in Banff. We may as well recognize the fact, however, that there is a strong suspicion in the minds of the profession in other parts of Canada that Ontario has never in the past, and does not now really want anything like inter-provincial reciprocity. For many years the other provinces had good reasons for their suspicions, and at the same time the Medical Council was supported in its action by the majority of the profession in this Province. Things have changed, however, to a wondrous degree, and there can be little doubt that the majority of the profession in Ontario at the present time desire to see a system of Dominion Registration whether through inter-provincial reciprocity or otherwise.

It is most unfortunate that the Ontario Council at its last meeting did not give the subject more careful consideration. The delegates sent to Winnipeg were instructed to meet the Committee of the Councils of the North-West and Manitoba and "discuss" reciprocity between the provinces, but had no power to do anything. That is to say, they could do nothing but discuss and report, which really meant postponing again for at least one year.

Representatives of the four Western Provinces met at Banff September 28th, with a determination to do something—and they did much. Dr. Spankie, an ex-President and member of the Ontario Medical Council, was present—in what capacity we hardly know, but certainly without any power to speak with authority. It is most unfortunate that a man so high-minded and honorable, and so well versed in educational matters as Dr. Spankie should have been really nothing more than a visitor at this most important meeting. Under the circumstances we cannot blame the Western men for going on with their business.

We are assured, however, that a large proportion, and probably the majority, of the physicians of the West want something bigger and better than the federation of four provinces.

ONTARIO MEDICAL COUNCIL.

Our correspondent "M. D.," though not a member of any Medical Council, has a very intimate knowledge of medical politics in the various provinces of Canada, but especially Ontario, Quebec and the Western Provinces. We received the letter, published in this issue, before we had heard any particulars of the Banff meeting. All the information obtained since goes to show that our correspondent is right. We should, therefore, like to call the attention of the Council to the suggestion that it would be well to call a special session to consider the advisability of amending the Ontario Medical Act by the addition of an "enabling clause," empowering that Body to act soon after the Roddiek Bill is amended, as it is likely to be at this session of the Dominion Parliament.

There is another strong reason why the Council should take immediate action. There is a feeling in various quarters, both among the public and the profession, that *it should do something at once* in the direction of providing better machinery to punish physicians guilty of criminal conduct. Its members say that it can do no more than it has done in the past under the provisions of the Medical Act. It is generally admitted that

the act is defective or "ambiguous." The majority of the Council hold the same opinion, but when a motion was made at the last meeting to endeavor to correct the ambiguous clause it was defeated, 6 voting for and 18 against. One of the most highly respected members said that he approved of the motion, but was afraid to go to the Legislature. Afraid of what at the present time we might ask?

Of course there were reasons for not appealing to the Legislature at one time. The late distinguished counsel, Mr. B. B. Osler, advised the Council not to ask for amendments. That, however, was a long time ago. We think the conditions he feared do not exist now. Things have changed very materially, and if the Council does not take action soon others will, and the Council is the proper body to act in the way proposed.

THE RODDICK BILL

Since the above editorial was written we have learned that the Council has taken prompt action, and a special meeting has been called for December 7th.

We presume that, among other things, the Roddick Bill will be discussed. After a lapse of seven years this Bill, which, apparently, had almost died a natural death, has somewhat suddenly come to the front again, and is now very much alive in all parts of the Dominion. The so-called "Roddick Bill" is an Act to provide for the establishment of a Medical Council in Canada. The purposes of the Council shall be to effect the establishment of a qualification in medicine such that the holders thereof shall be empowered to practise in all parts of Canada; the establishment of a board of examiners; the establishment of such a status of the medical profession in Canada as shall ensure recognition thereof in the United Kingdom; the enactment, with the consent and at the instance of the Medical Councils of the various Provinces of Canada, of such Provincial legislation as is necessary to supplement the provisions of the Act and to effect the foregoing purposes.

At the last meeting of the Canadian Medical Association a resolution was unanimously passed, from which we quote as follows: "That this Canadian Medical Association, now in session, urge upon Dr. Roddick the great importance of impressing upon the Government and Parliament of Canada the desirability of so amending the Canadian Medical Act of 1902 that when five or more Provinces agree to the provisions and pass the necessary legislation to make it effective, the bill may become law and apply to those Provinces which have so legislated."

OPERATIONS AND PROPER NAMES.

At the last meeting of the Ontario Medical Council an interesting discussion took place with reference to the use of proper names in examination questions: such, for instance, as Bozer's or Sim's or Halstead's operation, and Frank's breech. The history of the last expression is somewhat interesting. At the examination held in May, 1908, an examiner put the following question. Diagnose a breech. "How would you break up a Frank breech?" The students had never heard of such a thing as a Frank breech. No member of the Council understood the Frank breech. Therefore, strange to say, a question was asked by an examiner which no member of the Council and no candidate at the examination could answer. A discussion took place in the Council about Frank's breech, which was perhaps still more disconcerting. This probably arose from the fact that the examiner or proofreader made the word frank commence with a capital letter.

There is really no such thing as a Frank's breech, but there is such a thing as a frank breech. The term is used by Whitridge Williams, in his excellent book on Midwifery, three times or more. It means presentation of the breech alone with the legs extended against the belly of the foetus.

We think the term "frank" in such a connection is absurd, and we know of no other prominent English writer who uses

the term. We do not think Williams intended to coin a new word, but was simply following the German custom, which calls such a presentation a "simple" breech; an ordinary breech, a "complete" breech; and a footling a "half" breech.

Williams' work on Obstetrics is an excellent one in a way, but not at all suitable for the undergraduate student. It happened that the examiner, Dr. Ross McCabe, had a great admiration and a thorough knowledge of this text-book, and inadvertently did some injustice to the students, more than once on that account; but in doing so he had not the slightest intention of asking anything like a "catch" question. We think, therefore, that it is only just to Dr. McCabe to speak in a somewhat positive manner, and state that he had a good knowledge of the subject; and was an excellent, practical and honest examiner. The writer of this article entertains a very high opinion of Dr. McCabe, and takes this opportunity of thanking him for certain acts of courtesy while he was examiner in obstetrics for the Ontario Medical Council. The writer's desire was to keep in touch with the Council, and Dr. McCabe very kindly reciprocated.

RECIPROCITY WITH GREAT BRITAIN.

The matter of reciprocity between Great Britain and the Province of Ontario is one of great importance. There has been a good deal of opposition to reciprocity in the past, but conditions have changed so materially in many ways that the feeling in favor of it has grown very rapidly in recent years. There is, of course, the sentimental aspect which always appeals to loyal Canadians who love the dear old Mother Country, especially since the South African war.

We are glad that members of the Medical Council are considering such reciprocity very carefully. At its last meeting a committee was appointed to investigate the matter and report. The time at the disposal of this committee was too short to enable them to finish their work. They consequently presented the following very short report:

“The Committee on Reciprocity with Great Britain beg to report that they have met and discussed the question, and that, owing to the very great importance of the question, they feel that it requires further time for consideration, and therefore request that the Committee be continued.”

We presume the Council will deal especially with the practical side of the question. We think also that in so doing they will find many reasons in favor of reciprocity, and very few against it. The profession are commencing to realize that it would be a great boon to a large number of our young graduates who might, with British registration, get many appointments in various civil and military services in Great Britain.

MEDICAL AUTOMOBILIST.

A number of our medical brethren in Great Britain who have recently taken up the motor car have got into trouble because of over-speeding. In one instance a surgeon was returning in haste to London in response to an urgent message respecting one of his patients in a certain hospital. When travelling in his motor car to see his patient, he was stopped by the police and summoned on a charge of breach of the speed limit. The surgeon considered that such breach, under the circumstances, was justifiable in the interests of suffering humanity. He said if he had not been stopped by the police, he would have reached the hospital in time to have saved his patient's life. It happened that he would have reached his patient more quickly if he had conformed with the laws respecting speeding.

We really can see no reason why medical men should be excepted from the speed regulations. The dangers from rapid driving in certain places, especially in crowded streets, are so serious that no one should be allowed to exceed the limit.

It is rather absurd, for instance, for a London surgeon having a patient in a large hospital in that city, and receiving a telephone message from a place fifty miles in the country, to claim the right to endanger the lives of men, women and children in

his journey to a patient who has capable house surgeons and nurses to look after his welfare.

A certain writer in the *Daily Mail*, of London, claimed that medical men should be excepted from the speed rules, and supported his contention by the report of a case. He said that, on a certain occasion he was informed by his house surgeon that he need not attend the hospital, as the patient whom he proposed to visit had ceased to breathe. However, he telephoned directions for artificial respiration to be performed, and started off immediately in a taxicab. On arriving at the hospital, he cured his patient by performing an operation which gave vent to a brain abscess. He thought, in that case, he was justified in driving four miles in ten minutes. This is a good story, related in a lay newspaper, and initialed. It seems strange that no report of it appeared in the medical press. However, if the story is exactly true, it would hardly justify wholesale recklessness on the part of physicians and surgeons.

THE POOR WHITE.

We have seen much about the Poor White in both the lay and medical press during the last few months. He has lived in the South for several generations, and we believe that he comes from the purest Anglo-Saxon stock. He has degenerated to such an extent that he has been for a long time an absolutely worthless citizen, lazy and good for nothing. This "Poor White" really represents about 2,000,000 of wretched creatures. They are feeble, slow-moving creatures, emaciated, and with skin like tallow. They have depraved appetites of various types, but their most common habit is to eat dirt, clay, black soot, dried mortar, sand, chalk, slate pencils, shells, etc.

For many long years the cause of this marvellous degeneration was neither understood nor suspected. A few years ago, however, Dr. Charles W. Stiles, of the Hygienic Laboratory, Washington, announced, after careful investigation, that the

Poor White was not a wilful degenerate, but a helpless invalid through the work of the Uncinaria, or Hook Worm, an intestinal parasite supposed to have been brought by slaves from Africa many generations ago.

The Hook Worm is less than an inch long, and looks like a bit of soiled coarse thread. It has well-developed organs, mouth, esophagus, intestinal canal, various glands, and in the female a capacity for many thousand eggs. When it wants nourishment it presses its mouth disc against the intestine, draws a thin piece of mucous membrane into its mouth and punches it with its linches and fang. Through the minute holes thus made it sucks out the blood.

PASTEURIZED MILK.

There has been a great deal of discussion during the past few years respecting what is known as the pasteurizing of milk. Probably most of us would prefer fresh pure milk without submitting it to this process. We cannot be certain, however, of getting pure milk for the great mass of inhabitants of our large cities. Actual experience in many such cities appears to give evidence in favor of the process.

We are told by Dr. C. J. Hastings, the Chairman of the Canadian Medical Association Milk Commission that Dr. Lederer, of Vienna, in his report for that city, says: "The entire milk for Vienna is submitted to pasteurization. Previous to pasteurizing the milk in Vienna the proportion between the mortality of breast-fed and bottle-fed children in the summer was 1 to 20. Since pasteurizing the proportion is 1 to 5."

Again, in the city of Rochester, N.Y., the records for ten years previous to the establishing of municipal milk stations and the use of certified milk, the mortality for the months of July and August of children under five years of age was 2,297. During the ten years following the establishment of the milk depots and the use of certified milk the mortality was 1,143.

MEDICAL EVENTS IN HAMILTON.

Efforts are being made to form an amalgamation between the Hamilton Medical Society and the Hamilton Medical Library Club, with the hope that this larger body will get permanent quarters in the new Library Building in that city.

It is proposed that this new organization be known as the Hamilton Academy of Medicine, also that the new Academy of Medicine will take over all the furnishings of the Medical Library Club at a certain valuation. It is also proposed that arrangements should be made for permanent quarters, probably in the new Library Building, such quarters to consist of a meeting hall, reading-room and smoking-room, all well equipped.

The annual fee for membership in the Academy will probably be \$10; such fee to cover all expenses and supply the members with good medical journals.

The proposed scheme is certainly an excellent one, and we sincerely hope that our good friends in Hamilton will be able to accomplish what they desire.

NOTES.

A series of post-graduate clinics is being conducted in the Toronto General Hospital on Saturday morning at 10.30 o'clock. All members of the profession are cordially invited to attend.

It was hoped at one time that Professor Osler, of Oxford, would visit America next May, and among other things attend the meeting of the Canadian Medical Association. But he writes telling us that he will be unable to leave England until after the meeting of the British Medical Association in London.

Annals of Surgery.

This journal, which is now known as the *Annals of Surgery of Philadelphia*, made its first appearance on January 1st, 1885, and was the first medical journal in the world devoted entirely to general surgery. It is now completing its twenty-fifth year of existence, and is celebrating the event by sending out a special issue called the Jubilee Number for December. This journal took a high rank from the date of its first publication, and always has been, and is to-day, one of the best journals in the world.

THE BANFF MEETING.

On the invitation of the Alberta Medical Council for a meeting of delegates of the four Western Provinces, British Columbia, Alberta, Saskatchewan and Manitoba, to consider a scheme of federation of these Provinces, there met at Banff, Alta., Sept. 28th, 1909, the following delegates, duly accredited from their respective Provincial Medical Councils, viz.:

Manitoba—Dr. J. S. Gray, Winnipeg; Dr. J. N. Hutchinson, Winnipeg; Dr. R. S. Thornton, Deloraine.

Saskatchewan—Dr. W. A. Thompson, Regina; Dr. A. MacG. Young, Saskatoon; Dr. E. A. Kelly, Swift Current.

British Columbia—Dr. W. H. Sutherland, Revelstoke; Dr. A. P. Proctor, Vancouver; Dr. A. S. Munro, Vancouver.

Alberta—Dr. R. G. Brett, Banff; Dr. G. A. Kennedy, Macleod; Dr. J. D. Lafferty, Calgary.

At the first meeting Dr. Brett was elected Chairman and Dr. Munro Secretary.

After due deliberation and discussion, the following resolutions were adopted:

1. Resolved, That the delegates of this Convention affirm the desirability of creating a Board of the Provinces of Manitoba, Saskatchewan, Alberta and British Columbia, with duties and powers as hereinafter provided.

2. Resolved, That the Federated Board be composed of two members from each of the four Provinces, such members to be appointed by the respective Provincial Medical Councils and to hold office for a period of three years.

3. Resolved, That the Federated Board be empowered to appoint an Examining Board.

4. Resolved. That the possession of a certificate of having passed the examination of the Federal Board shall entitle the holder to registration in any one of the four Provinces upon payment of the registration fee of that Province.

5. Resolved. That the duties and powers of the Federated Board shall be:

(a) The determination and fixing the qualifications and conditions necessary for registration, including the courses of study to be pursued by students, the examinations to be undergone, and generally the requisites for registration except as hereinafter provided.

(b) To regulate the fee for examination and collection of the same.

6. (a) Resolved, That any person who begins the study of medicine after the year 1912 shall possess a certificate from some university approved of by the Board that he is a successful undergraduate of two years' standing or its equivalent qualification or a degree in Arts from an approved university.

(b) That the examination prescribed by the Federated Board shall call for a course of five years' study from those who graduate before, of not less than six months in each year in a school of medicine approved by the Board, and it shall be a complete examination in all subjects. Primary and final specified hereafter. Such examinations to be no lower than any prescribed by any of the four Provincial Medical Boards.

(d) That any registered practitioner resident in any of the four Provinces at the time of the organization of the Federated Board shall be entitled to registration on passing before the Board of Examiners the following subjects only, viz.: Medicine—Clinical and Theoretical, Surgery—Clinical and Theoretical, Pathology, Diseases of Women, Diseases of Children, Therapeutics, Obstetrics; provided always that his term of residence in actual practice in the prescribed area has not been less than five years, upon his presenting himself for examination.

(e) That the standard in examinations required be at least 50% in each of the primary subjects, and at least 60% in each of the final subjects.

7. *Finances.*—The initial expenses of the Board of Examiners shall be met by a loan or loans contributed equally from the four Provinces.

8. Resolved, That we record with pleasure the presence of Dr. Spankie, ex-President and member of the Ontario Medical Council, during our deliberations, and are gratified to learn that Ontario is desirous of joining in the Federation movement.

We regret that we are unable, at this date, to entertain this proposition owing to the imperfect development of this undertaking, but as soon as circumstances make it possible we will consider the applications for admission from other Provinces of the Dominion to join in the Federation, and the several Provincial Councils will be notified to that effect.

Resolved, That the delegates submit these resolutions and recommendations to their respective Councils and report to the Chairman (Dr. Brett), who shall call such further meeting as may be necessary.

Personals.

Dr. Albert A. Macdonald of Toronto returned from a trip to England November 16th.

Dr. G. F. Young, formerly of Prescott, has located in Toronto at 280 Roncesvalles Avenue.

Dr. J. Orlando Orr, who left Toronto for a trip to Great Britain and the Continent is expected home about December 20th.

Dr. T. S. Sproule, of Markdale, Sovereign Grand Master of the Grand Orange Lodge of British North America, was presented with a painting of himself in oil by the Ionic L. O. L. at a banquet in the Temple Building, Toronto, on November 8th.

Dr. Louis Wickham, the distinguished dermatologist of radium fame in Paris, has been invited to attend the meeting of the Canadian Medical Association and deliver an address. We are glad to be able to announce that he has kindly consented to do so if his engagements will allow him.

Obituary.

H. H. CLUTTON, M.D., F.R.C.S.

Dr. Clutton, Senior Surgeon of St. Thomas's Hospital, died November 9th. after a protracted illness, in his 60th year.

SIR STEPHEN MACKENZIE, M.D.

Sir Stephen Mackenzie, for many years Senior Physician to the London Hospital, died September 3rd, in his 65th year.

WILLIAM COCKBURN, M.D.

Dr. W. Cockburn died suddenly at his residence in Oshawa, Ont., October 27th, aged 72. He graduated from Victoria University in 1864.

HIRAM, A. WRIGHT, M.D.

Dr. Hiram Wright, a prominent Detroit physician, died November 24th, after an illness of four months from typhoid fever, aged 46. He was born in Guelph, Ont., and received a part of his medical education at the Toronto School of Medicine. He completed his course in the United States and practised in Detroit during the last twenty-two years.

JOHN BARR, M.D.

Dr. John Barr, M.P. for Dufferin, and for many years a resident of Shelburne, died suddenly in Ottawa, November 19th, aged 66. During his earlier years of practice he became very popular, and as a consequence was induced to go into politics. He represented Dufferin in the Ontario Legislature from 1875-9, 1890-4, 1898 to 1904. In the latter year he resigned to accept the Conservative nomination for the Commons, and was elected then and re-elected last year. He was very popular with both parties in the House of Commons. He graduated M.D. from University of Victoria College in 1866.

Correspondence.

THE COUNCIL AGAIN.

MY DEAR EDITOR,—I was very much pleased to learn from your editorial and from other sources that Dr. Spankie was present at Banff, and I hope you may secure for your readers from some reliable source an account of what was really done at the Banff meeting. From private letters and the accounts published in the *Calgary Albertan* and other papers near the scene of action I gather that, while no doubt Dr. Spankie's presence did good, we have as yet no real share at all in the movement. Let me respectfully ask you, sir, to use your influence in inducing the Council to call a special meeting to consider the situation. It seems to me that the thing for the Council to do at the present time is to seek legislation at the next session of the Ontario Legislature. They should see that the Ontario Medical Act is amended by the addition of an "enabling clause," so that when the Roddiek Bill is amended it may become law in Ontario without any further delay. Delays are dangerous.

How would it do to invite representatives of the Councils of the four Western Provinces to meet and confer with the members of the Council or their accredited representatives at that special meeting? The Council is great on questions of mileage. Let us see mileage applied where it will do most good to the Dominion of Canada and the profession of medicine.

I am, sir,

Yours, etc.,

M. D.

October 31st, 1909.

Book Reviews.

MODERN MEDICINE. ITS THEORY AND PRACTICE. In Original Contributions by American and Foreign Authors. Edited by William Osler, M.D., Regius Professor of Medicine in Oxford University, England; formerly Professor of Medicine in Johns Hopkins University, Baltimore; in the University of Pennsylvania, Philadelphia, and in McGill University, Montreal. Assisted by Thomas McCrea, M.D., Associate Professor of Medicine and Clinical Therapeutics in Johns Hopkins University, Baltimore. In seven octavo volumes of about 900 pages each, illustrated. Volume VI., Diseases of the Urinary System, of the Ductless Glands, of the Muscles, Diseases of Obscure Causation, Vasomotor and Trophic Disorders, Medical Aspects of Life Insurance. Just ready. Price per volume: cloth, \$6.00 net; leather, \$7.00 net; half morocco, \$7.50 net. Philadelphia and New York: Lea & Febiger. 1909.

The sixth volume of Osler's *Modern Medicine*, just off press, covers a very wide and important range of subjects, namely, the diseases of the urinary system, of the ductless glands, of the muscles, those of obscure causation, vasomotor and trophic disorders, and the medical aspects of life insurance. These diseases are all handled by specially competent men. John McCrae, of Toronto, begins the volume with two chapters on the kidney, followed by two on urinary anomalies and uremia by Garrod, of London. Herrick, of Chicago, deals with all aspects of nephritis, as well as amyloid disease, and Thomas R. Brown, of Baltimore, considers pyogenic and tubercular affections of the kidney. Its medico-surgical aspects, from the pen of H. H. Young, of Baltimore, conclude this section. George Doek, formerly of Ann Arbor, and now of New Orleans, has written the entire section on the ductless glands. Longcope, of Philadelphia, considers Hodgkin's Disease; T. McCrae, of Baltimore, arthritis deformans; Doek, of New Orleans, osteomalacia; and D. J. McCarthy, of Philadelphia, astasia-abasia and adiposis dolorosa. Together with W. R. Steiner, of Hartford, McCarthy has written the section on muscular diseases. The editor, Dr. Osler, with his former colleague, C. P. Emerson, of Baltimore, handles the section on vasomotor and trophic disorders, and Charles Lyman Greene, of St. Paul, concludes with the medical aspects of life insurance.

It is obvious from the foregoing brief of contents that the

English-speaking world of medicine is ably and impartially represented, and that the cosmopolitanism which is a distinguishing feature of *Modern Medicine* is consistently maintained. The best collective medical knowledge of the world is being placed at command of every practitioner in the most helpful form. The seventh volume will cover diseases of the nervous system, and will complete this great library of medicine. Its practical value is attested by its phenomenal success.

A HANDBOOK OF MEDICAL DIAGNOSIS for the use of practitioners and students. By J. C. Wilson, A.M., M.D., Professor of the Practice of Medicine and Clinical Medicine in the Jefferson Medical College, and Physician to its Hospital; Physician to the Pennsylvania Hospital; Physician-in-Chief to the German Hospital, Philadelphia. 408 illustrations and 14 full-page plates. Philadelphia and London: J. B. Lippincott Company.

The author divides the book into four parts—medical diagnosis in general, the methods and their immediate results, symptoms and signs, and the clinical applications. Each of these subdivisions is dealt with in a most masterly way, and in a style so readable that one feels at once the volume is something out of the ordinary. No other work we know of is so satisfactory from the general practitioner's point of view. Many new and excellent cuts are introduced, not for the purpose of showing what a wonderful man the author is—a custom all too common in modern text-books—but good diagrams and photographs to illustrate diseases described. The publishers have done their part well, and have presented to the medical public a work that we can most heartily endorse.

VACCINE AND SERUM THERAPY. Including also a study of Infections, Theories of Immunity, Opsonins and the Opsonic Index. By Edwin Henry Scharer, B.S., M.D., Assistant Professor of Parasitology and Hygiene, University of Missouri; formerly Assistant Rockefeller Institute for Medical Research, New York City. Published by C. V. Mosby Co., St. Louis, U.S.A. 1909.

We have in the above volume a concise review of the present status of the various sera and vaccines, presented in a form suit-

able for perusal by small practitioners. Emphasis has been laid on Wright's opsonic theories and technique, and in the later chapters on the various vaccines and their application in the practice of medicine. Serum therapy, its application and results are also treated at length. Altogether we gather from this work a clear account of the subjects discussed brought fully up to date.

BOOKS RECEIVED.

THE MORPHIA HABIT AND ITS VOLUNTARY RENUNCIATION. (A personal relation of a suppression after twenty-five years' addiction.) With notes and additional cases by Oscar Jennings, M.D. (Paris), Fellow of the Royal Society of Medicine. *Quoegue ipse miserrima vidi, Et quorum pars magna fui.* London: Bailliere, Tyndall & Cox, 8 Henrietta Street. Paris: Brentano, 37 Avenue de l'Opera. 1909.

A TREATISE ON THE PRINCIPLES AND PRACTICE OF MEDICINE. By Arthur R. Edwards, A.M., M.D., Professor of the Principles and Practice of Medicine and of Clinical Medicine, and Dean of the Faculty in the Northwestern University Medical School, Chicago; Attending Physician to Mercey, Wesley Hospitals, etc. Second and thoroughly revised edition. Illustrated with 100 engravings and 21 plates. New York and Philadelphia: Lea & Febiger. 1909.

MANUAL OF THE DISEASES OF THE EYE. For students and general practitioners. By Charles H. May, M.D., Chief of Clinic and Instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department, Columbia University, New York, 1890-1903; Attending Ophthalmic Surgeon to the Mt. Sinai Hospital, New York; Consulting Ophthalmologist to the French Hospital, to the Gouverneur Hospital, to the Red Cross Hospital, and to the Italian Hospital, New York. Sixth edition, revised. With 362 original illustrations, including 22 plates, with 62 colored figures. New York: William Wood & Co. 1909. Price, \$2.00 net.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. For the use of Students and Practitioners. By James Nevins Hyde, A.M., M.D., Professor of Dermatology in Rush Medical College, Chicago; Professional Lecturer on Diseases of the Skin, University of Chicago; Dermatologist to the Presbyterian, Michael Reese, Augustana, and Children's Memorial Hospitals and the Orphan Asylum, of the City of Chicago; Member of the American Dermatological Association; Corresponding Member of the Societe Francaise de Dermatologie et de Syphiligraphie; Corresponding Member of the Wiener Dermatologische Gesellschaft; and Corresponding Member of the Dermatologische Gesellschaft, and Honorary Member of the Societe Italiana di Dermatologia e Sifilografia. Eighth and revised edition. Illustrated with 223 engravings and 58 plates in colors and monochrome. Lea & Febiger, Philadelphia and New York. 1909.

DISEASES OF THE NOSE, THROAT AND EAR. Medical and Surgical. By William Lincoln Ballenger, M.D., Professor of Otology, Rhinology and Laryngology, College of Physicians and Surgeons, Department of Medicine, University of Illinois; Fellow of the American Laryngological, Rhinological and Otological Association; Fellow of American Academy of Ophthalmology and Otolaryngology. etc. Second edition, revised and enlarged. Illustrated with 491 engravings and 17 plates. Philadelphia and New York: Lea & Febiger. 1909.

THE MEDICAL COMPLICATIONS, ACCIDENTS AND SEQUELS OF TYPHOID FEVER AND THE OTHER EXANTHEMATA. By Hobart Amory Hare, M.D., B.Sc., Professor of Therapeutics in the Jefferson Medical College of Philadelphia; Physician to the Jefferson College Hospital; one time Clinical Professor of Diseases of Children in the University of Pennsylvania; and E. J. G. Beardsley, M.D., L.R.C.P. (Lond.), Assistant Physician of the Out-Patient Department of the Jefferson Medical College Hospital; Assistant Demonstrator of Physical Diagnosis and Clinical Medicine at the Jefferson Medical College; Physician to the Henry Phipps Institute. With a special chapter on the Mental Disturbances Following Typhoid Fever. By F. X. Dercum, M.D., Professor of Mental and Nervous Diseases in the Jefferson Medical College. With 26 illustrations and 2 plates. Philadelphia and New York: Lea & Febiger.

Miscellaneous.

Bad Debts.

Bad debts are responsible for the poverty of doctors more than any other business factor. Practically all medical men make enough money and have ample business to supply them with every comfort, but, unfortunately, the doctor is, as a rule, a very bad collector, and contents himself with only a small percentage of the money that he actually earns. There is enough business for all of the doctors in the land. The condition of medical practice from a business point of view is undercollected rather than overcrowded.

Not only are doctors poor collectors, but they seem rather to encourage an expectation on the part of the public that doctors will continue poor collectors. Most of us have a sneering way of speaking of the "close-fisted, penurious old cuss" who is the doctor who collects something from the rich and poor alike for the work he does. We may deny it, but so inbred is our lack of business sense that deep in our hearts we condemn the business-like doctor, at the same breath condemning the public for its failure to pay.

There is one prominent surgeon in Chicago whose office is reached by the patient only after passing through an outer office in which the doctor's secretary demands and gets a ten-dollar bill. That pays for the first consultation, and it is retained regardless of future business arrangements. This does not work a hardship upon the very poor, for this surgeon devotes several hours each day to free dispensaries and clinics where the poor are received and cared for. His office is reserved for his money-making, and by his good business methods he has been able to do more for the worthy poor, more for medical science, and more, incidentally, for his family and himself, than if he had gone ahead in the slipshod business way which is expected of medical men.

Poverty will be the lot of the medical profession until the doctor is not only convinced that the "servant is worthy of his hire," but until the doctor sees to it that the servant gets his hire. Your grocer does not say to you, when he comes to an accounting, "Your bill is \$50, but pay me \$20 and we will call it square." Hundreds of doctors close their accounts in this way with people who are amply able to pay in full. Is it because the doctor feels that his services are not worth the compensation?

Human Hands have no part in Manufacturing

Antiphlogistine

Inflammation's Antidote

From the moment the ingredients are placed in the specially designed compounding machine until the nurse removes the finished product from the sterilized container at the bedside, every move in the making is done by machinery and under the most rigid antiseptic precautions. By preventing exposure it is possible to conserve to the highest possible degree Antiphlogistine's hygroscopic properties.

No plastic dressing can be mixed in a mortar box with a hoe or in an ice cream freezer or even with a druggist's mortar and pestle and possess any scientific value. Its hygroscopic and osmotic qualities are necessarily ruined, owing to absorption of atmospheric moisture.

In using Antiphlogistine, the ORIGINAL and ONLY antiseptic and hygroscopic plastic dressing on the market, the physician knows that he is getting the BEST. Years of experience, specially-designed machinery, a perfect container and the knowledge how, when and why, enable the originators of Antiphlogistine to turn out a remedial agent which in kind has never been equalled in the history of pharmaceutical manufacturing.

The wise medical man who believes in ORIGINAL products, which are always the BEST products, prescribes

Antiphlogistine

*(Inflammation's
Antidote)*

The Denver Chemical Manufacturing Co.
New York

The Unsatisfactory Canadian Patent Medicine Act.

A careful perusal of the new Canadian Act respecting proprietary and patent medicines will leave the impression that the law has been framed with a view rather to appeasing public clamor than to furnishing public protection. The law defines "proprietary or patent medicine," in the sense in which the terms are used in the statute, as any artificial remedy or prescription whose name, composition or definition is not to be found in the various pharmacopeias or approved formularies or—and herein lies "joker" number one—which has not the "true formula or list of medicinal ingredients, which must not contain cocain," printed on the label or wrapper. This would seem to mean that nostrums of the most dangerous and objectionable type would not come under the jurisdiction of the new act, providing they contained no cocain, and their ingredients were published on the label. That is to say, such nostrums as Peruna and Orangeine, whose manufacturers claim to publish the "formulas," would not be "patent medicines" within the meaning of the new Canadian law! Nor is this the only weakness in the new statute. A poison schedule is given and any "patent medicine" containing one of the scheduled drugs must have the name of such drug—nothing is said of the quantity—"conspicuously printed" on the label and wrapper. Provided, however—"joker" number two—that if the manufacturer tells the authorities the quantity of any such scheduled drug his nostrum contains he may be permitted to sell his "patent medicine" without printing the name of this drug on the label "if it appears to the minister that the proportion of the drug used is not dangerous to health"! The potentiality for harm of this provision is limited only by the judgment of the man to whom is entrusted the enforcement of the act. It would seem that the new law will actually protect the Canadian public against cocain-containing nostrums; but from the innumerable other vicious forms of self-administered medicaments the act seems to offer tempting opportunities for the unscrupulous manufacturer to profit at the expense of the people. It may be that if the law is broadly interpreted and wisely administered our northern neighbors may obtain that measure of protection which they evidently desired; should it be enforced, however, with that slavish adherence to the letter, rather than to the spirit, that too often characterizes the execution of laws, we fear that Canadians will soon awaken to the fact that their representatives have handed them a legislative "gold-brick."—Editorial, *J. A. M. A.*

Duncan, Flockhart and Co.'s Capsules of the Formates

(No. 342) Format Comp.

R	<p><i>Sodium Formate</i> - 2 Grs. <i>Potass Formate</i> - 2 Grs. <i>Calcium Formate</i> - 3 Grs. <i>Quinine Formate</i> - 1 Gr. <i>Strychnine Formate</i> $\frac{1}{10}$ Gr.</p>	<p style="text-align: center;">Dose</p> <p>One or two Capsules three times a day, followed by a copious drink of water.</p>
----------	---	--

This form of administering the Formates is one largely in vogue for increasing tone in those who go in for physical exertion, such as athletes and men who are very actively engaged, who are merely run down and not suffering from any illness, but require a sharp tonic. The Formates are also useful in the treatment of Chronic Rheumatism.

R. L. GIBSON, 88 Wellington St. W., Toronto, Ont.

Sample on Request

The Ideal Cod Liver Oil Preparation

Maltine with Cod Liver Oil

"Patients who are unable to tolerate the purest and most carefully prepared Cod Liver Oil can readily take and assimilate it in combination with 'Maltine.' The taste of the Oil is almost entirely concealed, and what suspicion there is of it is not at all unpleasant."

—British Medical Journal

*For Sale by all Druggists
Sample on Application*

The Maltine Company
Toronto, Ont.

Determination of the Functional Condition of the Pancreas.

Fedeli and Romaneli (*Rif. Med.*, September 20th, 1909) describe the following method for estimating the functional capacity of the pancreas. To 1 c.cm. of the saliva they add 5 c.cm. of gastric juice, or an equal quantity of 2.5 per cent. HCl, shake the mixture, and leave it at rest for half an hour, then add 4 c.cm. of a 1 per cent. solution of carbonate of soda, so as to render the mixture slightly alkaline. They next add 20 c.cm. of a 10 per cent. starch paste, and place the whole in thermostat at 37° C. for two hours, repeatedly shaking. They then estimate the amount of sugar formed. The next stage consists in adding to the above mixture 10 c.cm. of an aqueous solution (1 in 4) of faeces, and leaving the whole in the stove for twelve hours and then estimating the sugar formed. The difference between the two estimations of sugar represents the degree of pancreatic functionality. To show that this was not due to other constituents of the faeces, the authors tested with bile and succus entericus, and found that they only gave negative results. A series of thirty control estimations by Müller's method showed that the results of the two methods were practically the same in each case.—*British Medical Journal*.

Life.

Man comes into this world without his consent, and leaves it against his will. During his stay on earth his time is spent on one continuous round of contraries and misunderstandings. In his infancy he is an angel; in his boyhood he is a devil; in his manhood he is everything from a lizard up; if he raises a family he is a chump.

If he raises a cheque, he is a thief, and then the law raises the deuce with him; if he is a poor man, he is a poor manager, and has no sense; if he is rich, he is dishonest, but considered smart; if he is in politics, he is a grafter and a crook; if he is out of politics you cannot place him, as he is an undesirable citizen.

If he goes to church he is a hypocrite; if he stays away from church he is a sinner; if he donates to foreign missions he does it for show; if he doesn't he is stingy and a tight-wad. When he first comes into the world everybody wants to kiss him; but before he goes out they all want to kick him. If he dies young there was a great future before him; if he lives to a ripe old age he is in the way, only living to save funeral expenses. Life is a funny proposition.—*Exchange*.