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NO. 2.

Original Contributions.

RESTORATION OF THE LOWER LIP AFTER ITS ENTIRE REMOVAL FOR CANCER.

BY FREDERICK WINNETT, M.D., M.R.C.S.(ENG.),
Surgeon Outdoor Department Toronto General Hospital and Victoria Hospital for Sick Children.

THE mutilation caused by the removal of the entire lower lip is so great that some method for its restoration should invariably be adopted. The neglect to do so is no doubt due to the complicated nature and frequent failure of such methods as those introduced by Malgaigne, Syme, Dieffenbach and Langenbeck.

I wish to call attention to a case in which I recently modified the method of Regnier, as it is simple of execution; gangrene is impossible, and the cosmetic effect perfect. Photograph No. 1 shows how extensively the lip was affected. Four and a half years ago a warty growth appeared, which two and a half years later became cancerous, and was removed by a quack with plasters. A year later it returned and was treated in a similar manner. The present growth began last August. Glands could not be felt.

With scissors the part was freely removed, the cut extending in a curved direction from the angles of the mouth to within three-quarters of an inch of lower margin of chin. Two inches below this wound a parallel incision was made five inches in length through the skin down to the periosteum, and the bridge of skin freed. A second bridge of skin was raised below this, one inch wide and two inches in length. Several enlarged submental glands were removed. The upper bridge of skin was slid up in contact

with the upper lip, and anchored to the periosteum with four silk-worm-gut sutures passing through the skin. The lower incision was sutured bringing its ends together, thus causing it to assume a vertical direction, and forcing the lower bridge of skin up to cover the entire wound left by the removal of the upper bridge. The patient returned to business in three weeks, and photograph No. 2 shows him as at present.

My method differs from Regnier's in two particulars. The directions given by Regnier for estimating the width of the bridge of skin—one centimeter wider than part removed—would often bring the cicatrix visible on the chin. The average width of the



skin from the margin of the lip to the border of the chin is two inches. I would therefore recommend that the bridge be always two inches wide in order to cover the whole chin and bring the cicatrix below it.

In the second place, leaving the raw surface to granulate is most objectionable, not only on account of prolonging convalescence and leaving a scar, but also on account of ultimate contraction drawing the lip down. Grafting would likely fail owing to the discharges, and in a male would leave a bald spot. My plan utilizes the loose skin of the neck, leaves no part uncovered and hastens recovery.

BACTERIOLOGICAL WORK IN THE LABORATORY.*

BY M. I. BEEMAN, M.D., NEWBURGH.

THE great service rendered to humanity by the science of bacteriology in helping us to understand the nature of the disease under discussion is admitted by all.

While most of the bacteriological investigation and research must necessarily be done in the well-equipped laboratory, there is much that general practitioners outside of cities may do for the benefit of their patients by themselves making microscopical examinations of sputum, serum, urine, pus, etc., for those suspected of tuberculous disease.

It is my practice to make a microscopical examination of the sputum of patients with cough and expectoration lasting three weeks or more, especially if attended with elevation of temperature, disorder of digestion, or loss of flesh. In difficult or doubtful cases I seek the aid of the laboratory expert.

The advantage of having the specimens fresh and as frequently as desired; and, on the other hand, the annoyance of packing and sending away of samples, and the delay in finding out results, make the inducements strong for one to do this work for himself if possible.

The fact of having the necessary facilities for making these examinations helps us to retain the confidence of these patients to whom we are giving so grave a prognosis.

The value of the evidence gained by noting from time to time the number and size of the tubercle bacilli, the presence or absence of secondary infection, as indicated by the streptococci and other pyogenic organisms, cannot be overestimated.

In our management of these cases successful results can be attained in proportion to the degree that we can imitate the conditions found in climatic treatment, and the methods employed at sanatoria.

In the highlands in the north of Ontario there are many localities well adapted as sites for sanatoria. We find there moderate altitude, sandy soil, and good chances for drainage. Hills and pine forests afford protection from winds and changes of temperature. The air is pure and free from pathogenic dust.

To these localities many of our afflicted ones would go, because there would be no long and tiresome journey; no difficulty or danger from acclimatization, and not so great a dread of separation and death far from family and friends; and, lastly, lessened expense.

Can we not by persistent agitation induce our philanthropists and legislators to establish sanatoria in several parts of the Province, and by so doing help the great army of consumptives to a chance for restoration to health, and at the same time lessen the danger of infection to the healthy?

* Read at meeting of Ontario Medical Association, June 13th and 14th, 1899.

How quickly would leprosy be dealt with by law if it obtained a foothold in Ontario? And yet leprosy is less contagious and less quickly fatal than tuberculosis.

1. As to home treatment: Make an early and positive diagnosis by microscope and physical signs, and, as a rule, frankly inform the patient of the nature of the disease.

2. Insist on as near an out-door life as possible, suitable exercise in non-febrile cases, and rest where temperature goes above 102°.

3. Give abundant food, and attend closely to the condition of digestive organs.

4. Avoid dusty, damp or unwholesome places in order to escape secondary infection as far as possible. Some one has justly said that "consumption is tuberculosis with pyemia added."

5. Our best drugs for internal administration are creosote, cod liver oil and hypophosphites.

6. I have seen some benefit from the use of nuclein, but patients dread the pain caused by the injections so much that I now seldom use it.

7. Antiseptic inhalations, as a rule, appear to be of benefit. Among other agents, I have for some months past used formalin, and with very great advantage. At first the vapor is somewhat irritating, but they tolerate it better the longer they continue its use. It seems reasonable to suppose that antiseptics inhaled into the lungs meet with and poison many streptococci, bacilli tuberculosis and other pathogenic germs, and thus lessen hectic, and perhaps retard the extension of the disease to healthy lung tissue.

I have now only a few words to say about prevention. The increase in prevalence of consumption in our part of Eastern Ontario during the past few years is quite noticeable to the practising physician without the confirmatory evidence of the Registrar-General's reports.

1. The favorable culture fields that catarrhal conditions of the mucous membranes of the air passages afford to the germ of tuberculosis should cause us to give these diseases careful treatment.

2. Phthisical patients must be carefully instructed as to the disposal of their sputum in such a manner as to avoid infecting others and re-infecting themselves. The early removal of these patients to sanatoria would greatly lessen the chances of infection to their families.

3. Very great care should be taken to prevent the use of the milk and flesh of tuberculous animals as food. It is claimed that tuberculosis in cows is largely due to overmilking. Bulls, steers and unimpregnated heifers escape. There should be legislation to compel dairymen and farmers to allow cows to be dry for three months of the year, and that healthy stables be provided for them.

4. The existence of tuberculosis among domestic animals (dogs and cats) is not uncommon, and should be looked after.

5. Finally, strict obedience to hygienic laws should be especially enjoined on those who by previous disease or family history may be deemed predisposed.

Orthopedic Surgery.



... IN CHARGE OF ...
B. E. MCKENZIE, B.A., M.B., AND H. P. H. GALLOWAY, M.D.

ON THE CONSERVATIVE TREATMENT OF TUBERCULAR JOINTS AND COLD ABSCESSSES AS PRACTISED BY MIKULICZ OF BRESLAU, 1890 TO 1896.

C. W. CATHCART, F.R.C.S. (*Scottish Med. and Surg. Journal*, March, 1899) gives an account of the methods practised by Mikulicz in the Breslau Surgical Klinik. In addition to fixation and rest, Mikulicz employs the injection of iodoform, and the artificial production of venous congestion, known as Bier's treatment. He employs a 10 per cent. emulsion of iodoform in glycerine, the great advantage of the glycerine as a vehicle being that it is itself a strong antiseptic, destroying all known pus-forming organism. Consequently, the emulsion does not require to be sterilized. Iodoform poisoning is avoided as far as possible by attention to the proper doses. The quantity of the fluid injected depends upon circumstances. For parenchymatous injection into the substance of pulpy synovial membrane from 4 c.cm. in young children, to 30 c.cm. in adults, may be used. For cold abscesses larger quantities may be employed; as much as 100 c.cm. may be used for adults and proportionately less for children. If the granulation wall of the abscess has been removed by operation a much less quantity must be employed, as absorption will then more readily occur. The symptoms of iodoform poisoning described are, severe mental affection, raised temperature, rapid pulse, paleness of the face, fixed eyes, spasmodic movements, albumen and strong iodoform action in the urine and the latter also in the saliva. The test consists in adding a little starch paste with sulphuric and nitric acid to the suspected fluid; the iodine is set free and turns the starch blue. It is stated that the injection of glycerine itself has been shown capable of producing toxic symptoms, such as elevated temperature, rapid pulse, sickness, vomiting, great thirst, restlessness, stupor ending in coma, blood pigment and traces of albumen in the urine, which is diminished in quantity and of a dark color. In using the injection the skin where the puncture is to be made must be prepared as for a surgical operation, and the instruments either boiled or well-soaked in 4 per cent. carbolic solution before being used. In the Breslau Klinik a medium-sized trochar is used for injection of abscesses.

For parenchymatous injection and other small abscesses a metal-mounted glass syringe is recommended, holding about 15 c.cm. General anesthesia is not used except sometimes in children. The injection of cocaine is not employed for fear of introducing sepsis. The fact that tubercular joint cavities are apt to be subdivided into separate compartments is met by injecting the joint in different places, as it is believed that the action of the iodoform is confined to the part to which it is applied and that its dissemination is limited. In carrying out parenchymatous injection various parts of the joint are attacked in succession. The needle is plunged deeply in, and firm pressure exerted upon the piston of the syringe till the point of the needle feels loose. It is then withdrawn a little and the same is done again. Before taking out the needle, it is thrust in a new direction, and the same procedure is adopted till the required quantity has been used. The next time another part of the joint is selected, and so on till the whole of the affected tissues have been overtaken. Neither massage nor passive movement is employed by Mikulicz to hasten the distribution of the iodoform, but the expected swelling and tenderness are provided for by loosening the bandages, lightening weights, and steadying limbs, previously free, with sandbags.

The injections are made at intervals of from eight to fourteen days as a general rule, sometimes much longer, but never under five days. Where simple spaces are being injected, as in joint cavities or abscesses, the interval is longer because the drug is generally brought into contact with the whole surface at the first injection. At first the fluid distension in an abscess or joint is increased by the injection, but this swelling gradually subsides. Many abscesses are cured by a single injection. Where an abscess complicates pulpy degeneration the two forms of treatment are combined, that is, the abscess is injected at long intervals and the synovial thickening receives parenchymatous injection at shorter intervals. In certain cases tubercular foci and granulation tissue are scraped away, and after the hemorrhage is arrested the wound is closed with sutures, with the exception of a narrow interval left for the subsequent injection of the iodoform emulsion. Cases coming for treatment with fistulæ already in existence, are less satisfactory to deal with. Sometimes the sinus is first scraped out, but in some cases the injection of the emulsion under pressure is trusted to, these injections being repeated two or three times a week. In combination with the application of iodoform, Bier's treatment is employed. The limb is first bandaged firmly to within a few inches of the joint. Above the affected joint a rubber tube or bandage is then wound sufficiently tight to produce a bluish-red discoloration of the skin of the unsupported parts below. The congestion is maintained for from fourteen to eighteen hours out of the twenty-four, the remaining time being employed to get rid of the edema by the use of elastic pressure applied over the joint itself. As improvement goes

on the length of time during which the congestion is kept up may be gradually diminished. Ill effects from the pressure of the elastic bandage are prevented by frequently altering its position and by applying an ordinary bandage between the skin and the rubber.

Of course the necessary splints for securing rest and protection of the affected joints are used the same as when these measures of treatment are not employed. It is claimed that by these conservative methods of treatment, operative procedures are much less frequently required and are much less extensive than formerly, and the treatment has established itself more and more firmly in favor as time has gone on. (One of the most useful ways of using iodoform in tubercular abscesses is to make a small opening into the abscess, allowing its contents to drain out, and then after closing the aperture with sutures to inject the abscess cavity from another point.)

H. P. H. G.

The Risks of Infection in Railway Cars.—The *Phila. Med. Jour.* thinks that an illustration of the dangers to which people are exposed who are compelled to use public conveyances, as well as of the necessity of adopting suitable precautionary and corrective measures, is furnished by a recent investigation conducted by Dr. Petri, of the Imperial Sanitary Bureau of Berlin, who found that of ninety-one animals inoculated with material, principally expectoration, obtained from the interior of railway carriages, nearly one-third died as a result, while of the remainder several on being killed were found to have become tuberculous. In those that died in consequence of the inoculation, staphylococci and streptococci were the organisms principally found. Tubercle-bacilli had previously been found by another observer in the dust from railway carriages. Indiscriminate expectoration should be rigorously forbidden, particularly in public places and in public conveyances, and infraction of this rule should be adequately punished, at least by fine. While we may not hope entirely to eradicate transmissible diseases, the observance of a few sensible regulations will go far to diminish their prevalence and restrain their spread. To this end let us make and keep ourselves and our surroundings, together with the air we breathe and the water we drink, as clean, as aseptic as possible.

Orchitis as the First Symptom of Urinary Infection following Stricture.—M. Carlier (*Gazette hebdomadaire de médecine et de chirurgie*, January 26th) reported recently to the French Association of Urology two cases of old-standing blennorrhagia in which no troubles of micturition existed, or at least none such as to lead the patients to consult a physician, but in whom an attack of painful and swollen testicle with fever compelled them to do so. This appeared to be the first noticeable symptom of stricture. Internal urethrotomy promptly put matters right.

Pathology.

IN CHARGE OF . . .

W. H. PEPLER, M.D., C.M., AND
J. J. MACKENZIE, B.A., M.B.

A SYSTEMATIC BACTERIOLOGICAL EXAMINATION OF THE FAUCES IN SCARLET FEVER AS A MEANS OF PREVENTING POST-SCARLATINAL DIPHTHERIA.

BY G. C. GARRATT, M.B. (CANTAB.),

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AND

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IN hospitals for infectious diseases patients convalescing from scarlet fever are not infrequently attacked with diphtheria. The cause of this has been the subject of considerable discussion; but a prevalent theory is to attribute it to the introduction into the scarlet fever wards of unrecognized cases of diphtheria. If this view be correct, it follows that post-scarlatinal diphtheria could be prevented by the early recognition and isolation of such cases. The great difficulty encountered is that the clinical diagnosis of diphtheria is often impossible, especially in patients who are in the acute stage of scarlet fever.

The only other method available for the recognition of the disease is the detection of diphtheria bacilli in the fauces by bacteriological examination. It has, however, been urged that diphtheria bacilli are so frequently present in the throats of scarlet fever patients as to render the isolation of such cases impracticable. F. Ranke¹ found diphtheria bacilli present in the throats of 53.7 per cent. of scarlet fever patients in Munich. Goodall² made a bacteriological examination of 87 cases of scarlet fever admitted into the Eastern Fever Hospital. The examination was made immediately after admission. In 6 diphtheria bacilli of the long variety were found, and in 13 bacilli of the short variety. The cases with bacilli were mild, and would not have been recognized clinically as diphtheria. One of the cases with the long variety of bacillus subsequently developed post-scarlatinal diphtheria, and so did 4 other cases in whom no bacilli were found on admission. Sverensen³ examined 1,547 scarlet fever patients on admission into the fever hospital at Copenhagen, and found diphtheria bacilli in 2.5 per cent. Beggs⁴ found diphtheria bacilli in the throats of 51 out of 140 cases of scarlet fever examined, but the examination was made at various periods after the admission of these patients.

Moreover, post-scarlatinal diphtheria was at the time prevalent in the wards, and 14 out of the 51 cases exhibited clinical evidence of the disease. The difference in the results obtained by these observers may, perhaps, be partially explained by the inclusion by some and the exclusion by others of Hoffman's bacillus.

In consequence of an outbreak of post-scarlatinal diphtheria in the London Fever Hospital during the winter of 1895-96, which necessitated the closing and disinfection of some of the wards, it was decided in March, 1896, to examine bacteriologically the throats of all scarlet fever patients then in the hospital, and of all new cases on admission; of the former, those in whose throats diphtheria bacilli were found were isolated.

Our present communication is a record of the examination in this way of all cases of scarlet fever admitted under our care since the above date, our object being to determine, first, the frequency of the occurrence of diphtheria bacilli in the throats of scarlet fever patients; and, secondly, the possibility of preventing post-scarlatinal diphtheria by the isolation of those cases in whose throats these bacilli are found. The cultivations were made upon Loeffler's blood serum, and were examined microscopically on the following day.

Bacilli of the diphtheria family may conveniently be divided into three groups: (1) The Klebs-Loeffler, or true diphtheria bacillus; (2) Bacilli resembling the above in morphological and cultural characters, but non-pathogenic to guinea-pigs; (3) Hoffman's bacillus.

We have discarded the term "pseudo-diphtheria bacillus" because it has been used in different senses by different authors. The distinction between the first and second groups depends mainly on the question of pathogenicity. This test was applied only to the bacilli of cases already in the wards in March, 1896, but it was not found practicable to continue the method. In the present record we have, therefore, coupled together these two groups under the single heading of "bacilli morphologically resembling the Klebs-Loeffler bacillus."

Hoffman's bacillus from a 24-hours old serum culture appears as a short pyramidal organism arranged in pairs, with the bases in apposition, the pairs being often grouped in parallel rows of two or more. Its protoplasm stains uniformly with methylene blue. This bacillus exhibits no pathogenic effect on the ordinary laboratory animals. It can usually be distinguished from members of the first and second groups by microscopical examination.

During the period from March, 1896, to December, 1898, inclusive, 666 cases of scarlet fever were admitted under our care. We have divided them into three classes:

A. Cases in whose throats bacilli morphologically resembling the bacillus diphtheriæ were present on admission. These only amounted to 8, or 1.2 per cent.

B. Cases in whose throats Hoffman's bacillus was found on admission. These numbered 21, 3.2 per cent.

C. Cases in whose throats neither bacillus was found on admission, the organisms present being other bacilli, various cocci, torulæ, etc.

CLASS A.—Cases of Scarlet Fever in whose throats bacilli morphologically resembling the bacillus diphtheriæ were found on admission.

No.	Name.	Sex.	Age.		
1	M. S.	F	17	Admission in desquamation period. Throat normal. Transient albuminuria. No sequelæ.	Isolated; 9 days later no bacilli.
2	G. C.	F	22	Admission in acute stage. Moderate attack. Thin exudation in front of the right tonsil; this by the next day had the appearance of diphtherial membrane. Treated with antitoxin. Rapid recovery. No albumen. No sequelæ.	Isolated; 3 weeks later no bacilli.
3	E. G.	F	9	Admission in desquamation period. Throat nearly well. A week later she developed rhinorrhea and had diphtheria bacilli in the nose. Transient albuminuria. Slight ciliary paralysis followed. Her mother was admitted at the same time with diphtheria, and her sister with scarlet fever. The latter developed rhinorrhea with diphtheria bacilli in the nose, but not in the throat.	Isolated; 3 weeks later no bacilli.
4	E. H.	F	5	Admission in desquamation period. Throat nearly well. Slight rhinorrhea with diphtheria bacilli in nose. No albumen. No sequelæ.	Isolated; 6 weeks later no bacilli.
5	R. F.	M	3	Admission in acute stage. Mild attack. No ulceration or exudation in fauces. No rhinorrhea. No albumen. No sequelæ.	*Kept separate; 5 weeks later no bacilli.
6	H. I.	F	3	Admission in desquamation period. Throat nearly well. No rhinorrhea. No albumen. Afterwards developed rhinorrhea.	*Kept separate; 5 weeks later no bacilli.
7	N. H.	M	5	Admission in acute stage. Mild attack. Some follicular exudation in tonsils. No albumen. No sequelæ.	*Kept separate; 3 weeks later no bacilli.
8	H. C.	F	19	Admission in acute stage. Mild attack. No ulceration or exudation. No rhinorrhea. No albumen. No sequelæ.	*Kept separate; 3 weeks later no bacilli.

* These patients remain in the ward, but are kept in bed until free from bacilli. During this time their drinking vessels, spoons, and forks are marked and washed separately from those of others.

In only one of these cases, No. 2, was there reason to suspect the presence of diphtheria from the clinical appearance of the throat, and even here the exudation was less suggestive of this disease than is often the case in pure scarlet fever. In Case 3, though the only evidence of diphtheria on admission was obtained from the bacteriological examination, slight paralysis ensued, and in this case there was distinct evidence of exposure to the double infection. The other cases exhibited no clinical evidence of diphtheria either on admission or subsequently. Half of these cases were admitted during the acute stage, and half after it had passed; all made a good recovery.

CLASS B.—Cases of Scarlet Fever in whose throats Hoffman's bacillus was found on admission.

There were 21 cases in this class. They exhibited no features of special interest, the attacks being of variable severity, but the majority of a mild type. Except that the follicular tonsillar secretion, so frequently present in scarlet fever, occurred in about the usual proportion of these cases, none of them showed on admission or subsequently developed clinical evidence of diphtheria. Though they were not isolated in any way they did not appear to convey diphtheria to others. They all made a good recovery.

In considering the above results, three points of interest appear:

1. Bacilli resembling the diphtheria bacillus in morphology were found on admission in the throats of only 1.2 per cent. of our cases.

2. Only a minority of these cases presented clinical evidence of diphtheria.

3. The presence of Hoffman's bacillus in the fauces did not appear to play any part in the causation of diphtheria.

We will now pass to the consideration of the second question which we propounded—namely, how far it is possible to prevent post-scarlatinal diphtheria by the method adopted. For this purpose we will tabulate the annual admissions into the London Fever Hospital of cases of scarlet fever and also of diphtheria during the last six years, showing the incidence of post-scarlatinal diphtheria in each period. A larger number of cases appear in this table than we have hitherto mentioned. This is due to the inclusion in it of Dr. Sidney Phillips' cases, which were in the same wards, and were isolated in the same way as ours when showing suspicious cultivations. We are indebted to the kindness of Dr. Sidney Phillips for permission to refer to and include his cases. We add, for comparison with our figures, similar data extracted from the reports of the Metropolitan Asylums Board:

THE LONDON FEVER HOSPITAL.

Year.	Scarlet Fever Admissions.	Diphtheria Admissions.	Post-scarlatinal Diphtheria.
1893	704	5	4 = 0.52 per cent..
1894	294	25	1 = 0.34 "
1895	516	52	14 = 2.71 "
1896	637	65*	3 = 0.47 "
1897	431	45	1 = 0.23 "
1898	325	40	0 = 0 —

* All admitted after the month of March.

THE METROPOLITAN ASYLUMS BOARD.

Year.	Scarlet Fever Admissions.	Diphtheria Admissions.	Post-scarlatinal Diphtheria.
1893	14,548	2,348	204 = 1.40 per cent.
1894	11,598	3,660	220 = 1.90 "
1895	11,271	3,635	408 = 3.02 "
1896	15,176	4,508	705 = 4.64 "
1897	15,241	5,673	796 = 5.22 "
1898	Statistics not yet published.	—	—

It will be observed from these two tables that the percentage of post-scarlatinal diphtheria at the London Fever Hospital has been uniformly lower than that at the hospitals of the Asylums Board. In both tables, however, a conspicuous increase in the percentage of post-scarlatinal diphtheria appears in 1895. Whereas, however, in the Asylums Board hospitals this percentage continues to increase in 1896 and 1897, in the London Fever Hospital table it suddenly falls in 1896, and continues to diminish, until in 1898 no case occurs. This difference is rendered more conspicuous when it is pointed out that of the 3 cases in 1896, 2 occurred before the month of March, when our record commences.

Since that date but 2 cases of post-scarlatinal diphtheria have occurred among 1,332 scarlet fever patients admitted, in spite of the admission of 150 cases of diphtheria. Of these 2 cases 1 was isolated on account of rhinorrhoea accompanied by the presence of diphtheria bacilli in the nose. In an adjoining room was a case of diphtheria with scarlet fever. It is possible that the mild attack of faucial diphtheria which supervened six weeks after admission was contracted from this source. On the other hand, the throat may have been infected from the nose. For the second case no cause could be assigned. In neither of them were bacilli found on admission. Both made good recovery.

The first of these two patients was included in a series of 51 cases of post-scarlatinal rhinitis described by Todd,⁵ his observations covering a part of the period included in our report. The leading characteristics of this complaint were as follows: It attacked children only, causing external rhinitis with slight watery discharge. It caused no constitutional disturbances. It was definitely contagious, spreading as rhinitis from child to child, but it did not give rise to faucial or laryngeal diphtheria. A bacillus was isolated by Todd from the noses of these patients, which by all available tests, including that of pathogenicity, was the true diphtheria bacillus, yet he failed in nearly every case to discover any such bacillus in their throats. Were these cases of nasal diphtheria? If so, why did they give rise to rhinitis only and not to faucial diphtheria, and why did not the disease spread beyond the nose? Whatever the explanation, the fact remains that post-scarlatinal faucial diphtheria did not arise. Nevertheless it appears to us that such cases of rhinitis might be the starting point of faucial diphtheria, and that in future they will require careful supervision.

GENERAL CONCLUSIONS.

We believe that post-scarlatinal diphtheria is due to the introduction of unrecognized cases of diphtheria into the scarlet fever wards, and that this can only be obviated by systematic bacteriological examinations of all cases on admission, and by separation of those in whose throats diphtheria bacilli are found. If Hoffman's bacillus, which we believe to have no direct causal connection with

diphtheria, be excluded, the number of such cases, though probably greater among patients more liable to double infection than ours, should not be beyond the isolation resources of most fever hospitals; moreover, absolute isolation does not appear to be essential. At any rate, we consider that the method deserves trial on a larger scale.

Further, we think that some supervision of cases of rhinitis with diphtheria bacilli in the nose should be practised, such as keeping them in bed while the discharge continues; for though these cases do not appear to have given rise at the London Fever Hospital to faucial or laryngeal diphtheria, yet such an occurrence is quite possible.

REFERENCES.—¹*Münch. med. Woch.*, Bd. 42, 1896. ²*Epidem. Soc. Trans.*, 1896. ³*Zeit. f. Hyg. und Infectious-Krankheiten*, Band xxix, Hft. 2, 1898. ⁴*Met. Asylums Board's Report*, 1895. ⁵*Lancet*, May 25th, 1895. W. H. P.

Professional Secrecy in English Law.—A memorandum of the law of England relating to the obligation of medical practitioners with regard to professional secrecy has been prepared by Mr. Muir Mackenzie, at the request of the General Medical Council. It is declared that "a medical man not only may, but must, if necessary, violate professional confidences when answering questions material to an issue in a court of law." The law of New York is directly contrary to the English law in this respect.

Heat in Hemoptysis.—The literature of hemoptysis is voluminous, a remark that applies to a number of equally urgent symptomatic emergencies, but it has hardly yet attained the dignity of an exact and trustworthy therapeutic gospel. In other words, the logical chain has been weak in one or more of its links, and has not withstood the stream of practical experience. To take an illustration of the lack of knowledge of principle that underlies many of the physician's procedures, take that of the application of cold to the chest, a step that has been time out of mind the sheet-anchor of the medical attendant. What more simple, what more reassuring to the patient and his friends, and we may now add in the light of modern wisdom what more ridiculous and ineffectual measure could be undertaken? Any candid medical practitioner who has had a fairly wide experience of hemoptysis will probably admit at once that he can do little in severe cases even in the way of palliation. The stock remedies are gallic acid, styptics and ergot internally, with hypodermic injections of morphia, rest and the external application of ice. Sooth to say, it is not unlikely that we hitherto have all been wrong, and the proper thing is an application to the chest as hot as the patient can bear it. At any rate, many practical men do not hesitate to say that ice never yet stopped a bad hemoptysis. As the point is one of considerable interest and importance, some of our readers might be good enough to favor us with their particular views and experiences upon the subject.—*Med. Press and Cir.*

◉ ◉ *Selected Articles.* ◉ ◉

**THE BEDSTEAD AS AN IMPORTANT FACTOR IN
DOMESTIC HYGIENE AND COMFORT.**

BY LAWSON TAIT, F.R.C.S., M.D., LL.D., ETC.

THERE is no article in ordinary life-long use with which we are so closely related, with which we spend so much of our time, which we so often occupy with such affectionate readiness and leave with such poignant regret as our bedstead. Yet how little care is given, certainly but little was given in the past, to the principles of its construction and use, so that personally I feel that between the primitive Scotch box-bed filled with a good elastic truss of well-dried heather and one of Whitfield's Ideal Bedsteads, introduced by that firm with my own name attached as a hospital bedstead, there is nothing to choose. Both of these have excellently well carried out the first necessities of health and comfort, and all between had better be given up.

This is the theme I propose to discuss in the following paper, combining in my narrative of the "bedstead as a factor in sanitation" some advice which I regard as wholesome and much needed in the general management and arrangement of our bedrooms. That this advice will be successful I have little doubt from the widespread revolution caused by a little paper which I wrote some twenty years ago, on "Bedroom Ventilation," out of which have grown the whole army of automatic ventilating and heating arrangements combined with and made into stoves of all kinds, gas and coal-burning. Had I patented the suggestions in that paper, I had now been more than a millionaire, but I do not regret that I gave my plans free to the public as I now give my notions on bedroom management.

It is always useful and full of interest to trace the evolution of any object, whether in the animal frame or in the ordinary use of humanity—and the growth of the bedroom and the bedstead have their interest like other things. From the time of the cave-dwellers through the various stages of savage and nomad life, the dwelling space was used for all purposes in common, and it is only after the wandering hunter has achieved fixity of tenure and residence that he discovers the advisability of shutting off part of his house as a sleeping place. This becomes easier as he learns how to use the more permanent kinds of building materials, timber,

brick and stone; and as his skill grows, so does the fixity of possession and its continuity by descent, so that it comes practically that the bedroom appears with the pursuit of land tenure and culture and the erection of permanent houses. This brings us into the midst of advanced civilization in which in Britain probably we were left by the Romans, the construction of whose bedrooms and bedsteads is quite well known, though neither were well adapted for permanent use in such a climate as ours. Even with the help of the efficient hypocaust the comfort of both in Britain must have been difficult to maintain, and when the skilled Italian artificers disappeared from our country in the fifth century we probably went back to the bundle of ling and its thin covering.

The Normans brought back a better kind of domestic building, and when the settlement of the country towards the end of the fifteenth century made domestic architecture possible for others than the Norman barons, the English yeoman adopted for his buildings the only material at his hand, the rough oak of his native woods and the dab and wattle still seen in the interstices of the beams till this day, formed from the osiers of the meadows and the mud from the river side. The Norman nobility, as we know from old drawings and tapestry representations, used the single bedsteads as used on the Continent now. The castles in which they lived were massively built of stone by guilds of imported masons. The floors were level and the doors could be made quite square, and fitted fairly well. The windows were provided in the main rooms with well-fixed glass, and at other times with well-made oaken shutters, so that the chambers of a Norman, with their large fireplaces abundantly supplied with wood fuel, must have been exceedingly comfortable habitations. The enormous thickness of their walls secured a very fair uniformity of temperature, and the downfall of cold air from the walls was modified by the hangings of tapestry. For their bedsteads there was no need of hangings, and, so far as I can find out, they did not use them.

But the Saxon farmer had to build his dwelling on lines determined by the curves of the beams at his disposal. The quaint and picturesque twists of a fifteenth century "oak and wattle" building are not the result of "settlement" or bad workmanship, and the inequalities of floor level were determined not by eccentricities on the part of the builder, but were the best he could do with his material. Casements, therefore, and doors could rarely be made true and closely fitting; in fact, they never were till late in the sixteenth century, when we find these beautiful panellings coming into use. "Draughts" in bedrooms must have been therefore the rule and not the exception alike in castle and farmhouse. In the former they arose not only from badly fitting doors and casements, but from the downfall of masses of chilled air from the stone walls, and therefore tapestries were hung round the rooms to keep warm the occupants of the little Norman bedsteads. The farmers could not afford the costly products of the French looms,

and their women had something else to do than spend their time over the tambour frame. Therefore, a smaller apartment was constructed within the bedroom in the shape of a huge four-post bedstead, hung round with curtains, probably of common homespun serge, or the box-bed of the north was employed, though no trace of this has been found, so far as I know, south of the Humber. Into such contrivances a whole family must have crowded, probably with the addition of occasional visitors. This, of course, is an occurrence common enough even now in outlying Highland districts, where the box-bed with its complete set of shutters still is in common use. Such a marvel as the Great Bed of Ware, dating certainly from the reign of Henry VII., and perhaps earlier, measuring twelve feet square, represents the best instance of the "room within a room" which was still in use in the vast majority of well-to-do houses until the beginning of the series of "Great International Exhibitions." Between 1851 and 1861 the French taught us the use of single bedsteads, and we introduced washhand basins and other lavatory arrangements to their notice, whilst the only permanent advantage either of the nations gained from the Crimean War was the use of the bath and the bathroom, taught us by the Russians, widely used now in this country, not so widely in France. The Great Bed of Ware, still preserved in the old timber and wattle Rye House Inn at Hoddison, is traditionally said to have accommodated twelve men and their wives, and if we may judge from what Howard records early in this century on the customs in hospitals and workhouses of the Continent and this country as well, in certain places, the statement about our fifteenth century carved oak bedsteads must not be regarded as any exaggeration, and we must not wonder at outbursts of plagues and pestilence arising directly from such causes. Nor does the moral atmosphere arising from such habits require explicit illustration.

The dawn of domestic sanitation, as we now know it, occurred as late as I have already said, and was not fully appreciated till well on in the seventies. Bathrooms began to be added to our homes. We still had grates in our bedrooms, with "closing registers," so as to preserve that delicious "bedroom odor" familiar in all sleeping rooms badly ventilated, and which, in my belief, is the initial stage of the growth of the power of typhus fever. Four-post bedsteads were still in common use, but the curtains had become mere survivals, as seen in a valance along the top rail and hangings about a yard wide at each corner, only sufficient to show what had been their original purport, but quite ineffective to keep off the draught which at that time was an essential feature of an English bedroom. The bed was a huge ungainly object, expensive and uncomfortable, fitted with wooden slats, which resisted all movement and exercised their uncomfortable influence through the thickest of mattresses and feather beds. It was of course made of huge slabs of wood, into the interstices of which vermin sought and obtained access, and once there they could hardly ever be exterminated.

I remember very well that in London it was, one might say, the rule to have vermin in all bedsteads used by the public, as in hotels and lodging houses, and private homes were by no means uniformly free from them. Bugs were the subject of chronic jokes in all humorous writings, whilst at the present advanced period of the development of sanitation they are never alluded to. This is one of the minor improvements, minor in name perhaps only, which have taken place from the persistent arguments in favor of simple cleanliness, which is the gospel of true sanitation.

The first step in the right direction was the introduction of metallic bedsteads, and I remember very well the furor of indignation with which they were met—for nothing annoys an Englishman so much as any interference with his personal habits or belongings. Arguments of the most ridiculous and improper kind were used on all such occasions. Thus I have heard it urged by men who were otherwise sane, that they would not have gas fires because they could not spit in them, and could not poke them. But metal bedsteads have had their way, and now a home furnished with wooden bedsteads is looked upon with suspicion, and a hotel so provided would have but scant favor in popular estimation. But the old form of bedstead was imitated, of course, as closely as could be, just as the old chariot was imitated in our first railway carriages. The old wooden slats were replaced by a cross-work of iron laths, as rigid and uncompromising as their predecessors. The "half tester" continued the survival of curtains, quite useless, but of great comfort to the English housekeeper, as unintelligible as that "blessed word Mesopotamia." Then the bedsteads must be double to hold two people, in spite of the warning lessons bestowed on every household every time a member of it had an attack of illness. The additional comfort obtained by every English man and woman on a visit to the Continent when they found in their bedrooms two snug little single bedsteads placed side by side, made no impression till about ten years ago, when a few venturesome islanders began to dare the breath of scandal by having separate beds. There can be no doubt that this was the reason why the improvement was resented, for to this day the proof of the worst that can be circulated concerning a married couple is that "they occupy separate rooms." Separate beds was and is, to some extent still, regarded as almost as scandalous. Yet in all the best homes in our country each bedroom has attached to it a "dressing room," with a single bed in it, and by this a great increase in comfort and health is attained. Now that we know that consumption is a disease communicated from one to another by contact and breathing the air already breathed by the consumptive, the hygiene precaution of separate beds ought to receive some public recognition. For centuries the Italian physicians have taught the possibility of the disease spreading from husband to wife, and from one person to another, when a tainted and a healthy person have occupied the same bed. There are doubtless many other diseases of which the same is true.

Having now roughly indicated what a bedroom and bedstead should not be, let me try to show what they should be and what they easily may be made, and that this is a matter of real urgency to personal health and comfort must come home to everyone when it is remembered that from the beginning of life to its end we spend more than half our time, and its saddest moments, in our bedrooms and in our beds.

First of all, the capacity of a bedroom should be such as to allow of at least 2,000 cubic feet to each occupant. It should have a flue of at least six inches in clear diameter, and this flue ought not to be in an outside wall, otherwise the chimney is sure to smoke when there is a fire, and it will fail as an upcast shaft at all other times. Nearly all smoky chimneys arise from the fact that they are built in an outside wall which is too thin. The room should, if possible, be warmed by a gas fire, as in this way only can a uniformity of temperature be absolutely maintained, and for very young and very old people nocturnal variations of temperature are extremely dangerous. But a gas fire is not an old coal grate filled with asbestos. A gas fire must be constructed for the use of gas on entirely special principles. The sashes of the windows should fit well and in every instance be provided with plate glass, for the reason that nothing assists the variation of nocturnal temperature like the employment of the common sheet glass of the jerry builder. In going over the magnificent hospital built lately by the Birmingham Guardians for the old and sick, I had only one adverse criticism to make, that the windows, properly placed on both sides of the large wards, had not been provided with plate glass. The difference in price in the two kinds of glass is far more than paid for in the difference in the coal bills incurred within the first two years to keep the wards sufficiently warm, for plate-glass is a most efficient non-conductor of heat, and thin sheet glass is not nearly so efficient.

In all bedrooms the beds (I assume now that in every case the beds are single, and when there are two that they are placed alongside each other) should have their heads close to an inside wall. If this cannot be arranged then the wall and the ceiling for a space corresponding to the bedstead should be covered with a thick serge, loosely attached to the wall, to prevent the cataracts of air chilled by the cold wall falling on the sleeper. The worst of colds are caught in this simple way in the small hours of the morning, and many a fatal senile bronchitis might be saved by this simple expedient. For the same reason the bed must not be placed between a badly fitting window and the flue or the doorway. For ventilation by far the best plan is the familiar plan of making a small place between the window middle bars by raising the lower sash about two inches against a fixed inner sill plate. In this way a gentle stream of fresh air is diffused over the ceiling and displaces the foul air.

For the perfect hygiene of the bedroom there are of course

very many points of importance into which I cannot enter, as that the walls should be double, with at least two and a half inches of something between them, that the outer layer of bricks should be vitreous (pressed Philadelphian), that the doors and windows should fit accurately, and, *most of all*, that the jerry builder should be avoided like poison.

We come now to the important matter of the bedstead, and the only people who require special consideration are those over six feet high, for whom extra length must be provided. Otherwise, no bedstead need be more, and all ought to be six feet three in length, and no bedstead whatever, if constructed on the principles I intend to lay down, need be more than three feet wide, save for a few unfortunate people who are on exhibition. The material, of course, must be some metal, of which the best is steel and the worst is brass. Steel or iron, with the beautiful black enamel now used by Messrs. Whitfield, tastefully set off with a clean white Marcella counterpane, makes the smartest and prettiest bedstead in any room, be it in cottage or palace, and it gives the least trouble; but of course tastes differ in the matter of material. Both head and foot rails ought to be finished in a strong, flat arch, an essential feature for the strength and smartness of the bedstead. For strength and steadiness the head rail must have four or five vertical bars fully secured into its arch and transom, so that the pillows are not pushed out by restless sleepers, whilst the arch of the foot rail, not more than six to eight inches high, should have one horizontal bar to prevent slipping of the mattress. The head rail and upper legs are framed firmly all in one piece, and so with the foot rail and lower legs, whilst the frame of the bedstead is a solid parallelogram and a permanent frame for the "Dominion Wire Mattress," by far the greatest improvement in modern bedstead making.

The adjoining figures will show that this beautiful and unique contrivance is a linkage of steel wire in short pieces, bent and hooked so that every two pieces enclose an elongated parallelogram, save at the margins. If such arrangement were carried over space indefinitely, it would mean that pressure at any point would radiate equally in all directions. But as the frame of the mattress has a length of twice its breadth the diminished longitudinal strain is supplemented by a series of strong spiral steel springs, which serve the additional purpose of giving a point at which detachment of the springs from their frames may be begun should it ever become necessary to remove them, or if detached the process of reattachment ends there. But there never ought to arise any necessity for detaching the springs or wire meshes, for the material supplied by Messrs. Whitfield is so good, the balances of tension so perfectly contrived, that it never varies. I am far beyond the average weight of male mankind, and I have used the same "Lawson Tait Bedstead" for now nearly seventeen years, and the tension of its springs has never varied in the slightest

degree. The spring mesh is tightly secured all around the inside of the firm metal frame, made in one piece, so that the whole bedstead, weighing about 80 lbs., and joined together by beveled key joints or dovetails, comes into pieces by a few smart blows from below upwards delivered on the dovetails on each corner, and for removals these three pieces pack on one another flat, and require only to be tied together. Compare this with the awful work of removing an old-fashioned four-poster.

Another of the faults of the old four-posters was that they were far too high, requiring, as we see in Hablot K. Brown's illustrations of *Pickwick*, wooden step-ladders by which to mount into the apartment. This fault is continued, to the great discomfort of short people and those who are old, feeble and ill. Measuring the bedsteads of a number of first-class hotels I find that to the upper edge of the mattress, thirty inches and over is the usual height—far too much for any save people much above the average stature. Twenty-four inches to the upper edge of the mattress is far more comfortable for everybody, and the most comfortable bed, in my opinion, in the matter of height, is one on which the occupant can sit with the knee bent at very little more than right angles. For men of average height (5 ft. 8 in.) this will be found to be about 17 inches, or just the height of an ordinary chair, and this should include mattress and bedding. The legs of such a bedstead would not be much more than a foot long, and the great advantage of this height with a width of 36 inches will be found in cases of illness in heaving people who require much moving, and this is the greatest test to which a bedstead can be put, for the attending nurses of the present day average only 5 feet $\frac{3}{4}$ inches.

It was this matter of the bedstead during illness, especially surgical ailments, which first forced the question of the bedstead and its proper construction upon my notice. In cases of illness the nurses are fearfully handicapped by an old-fashioned high double bedstead. The number of serious illnesses acquired by young women and caused by the strain of lifting heavy and helpless invalids, has been very large in my experience. Therefore, I say, have all your bedsteads single, narrow, low, perfectly rigid, so constructed that they will not sag, and have a stout steel screw-eyelet fixed in the ceiling over the site of every bedstead, into which a cord may be fixed when wanted. This question of sagging of a bedstead is of the greatest importance, and a thoroughly depressed bed-frame is a trouble even to those who are well, whilst in illness it means inevitably that, however well placed, the patient will shortly work round so as to be on his back—always a helpless position, and one that often contributes greatly to the discomfort of a patient and sometimes even to his death. I have completely cured sagging by throwing the top and bottom rails of the mattress-frame into a widely-opened arch, so that when occupied the whole wire mattress is slightly arched upwards from side to side, and when occupied by an average weight the mesh is exactly

flat. Turning from side to side in such a bed is a matter of ease for even the feeblest, and the inevitable turning on the back is entirely prevented. The ring in the ceiling, which is no eyesore in the private bedroom, assists most materially in the movement of those even who are in acute illness and who without it would hardly move at all, and would require every movement to be made for them by nurses. We never know when a bedstead may have to bear a bed of illness; therefore the ring should have a very common presence in the bedroom ceilings.

Messrs. Whitfield have brought the "Lawson Tait Bedstead" to what I think is final perfection by the india rubber foot pad. It prevents noise and jarring when the bed has to be moved, and it is an enormous advantage over the old caster which was noisy, frequently came off, and these were a source of much trouble. Thus the caster whether off or on was a potent factor for the marking and disfiguring of a well-faced floor.—*The Birmingham Medical Review.*

TWO MONTHS IN THE MEDICAL WARDS OF THE NEW YORK POST-GRADUATE HOSPITAL.

BY WILLIAM HENRY PORTER, M.D.,
Professor of Pathology and General Medicine, etc., etc.

I.—ANEMIA.

THE two cases here reported are chiefly interesting from the dissimilarity of their causation.

The first case gives the following history:

Miss M. S., aged 19; single; dressmaker. Her mother died of phthisis, and her father is now being treated for a lung trouble. Springing from such stock, it is not strange that this patient should give the history of all her life being weak and delicate. She began to menstruate at sixteen, and has since been regular every four weeks. Her present trouble began about ten months before she was admitted to the hospital, which was on January 6th. Her first symptom was pain in the stomach after eating; the digestive disturbance gradually increased associated with increasing weakness. This was followed by fainting spells. Her occupation was naturally very confining, and she took but little out-of-door exercise. There has also been a condition of obstinate constipation. For three months prior to admission to the hospital the menses have been irregular, accompanied by more pain, and a more profuse flow of lighter-colored fluid instead of the ordinary sanguineous discharge. For three weeks before admission she had been in bed a great part of the time, complaining of quite severe gastric pain, especially after eating, but without vomiting. Sleeps poorly.

Physical examination gave practically a negative result, so far as the organs contained in the chest cavity were concerned. The abdomen was both tympanitic and dull, some portions of the alimentary canal being filled with gas, while other regions contained fecal matter. Auscultation gave but little evidence of vermicular movements on the part of the intestinal canal.

Examination of the blood at the time of admission to the hospital gave 2,512,000 red corpuscles to the cb. m.m., and 55 per cent. hemoglobin (Gower's) in the blood.

The pulse and temperature ranged but little above the normal. The urine in this case presented no marked abnormal appearances.

The second case is that of a female:

Mrs. A. G., aged 34, married; admitted March 14th, 1899.

The family history was unimportant. She has always been fairly well, but had the usual diseases of childhood. Has had nine children and two miscarriages, the first fifteen months ago, and the second twelve months later. Since the last miscarriage she has been flowing almost continuously. Has had severe headaches. Two weeks prior to admission she had what was called pleurisy in the left side. About this time the feet began to swell, and she complained of quite severe pain in the smaller joints of the feet.

The uterus was curetted and packed with gauze. This was done under the local influence of cocaine, as Dr. Dudley considered her condition so desperate that he did not think it safe to give an anesthetic.

When first seen by Dr. Porter, which was shortly after the operation, the patient was suffering greatly from dyspnea, unable to lie down, was very anemic, pulse about 100; temperature 100.8° F. The lower extremities were edematous, and there was marked pain and swelling about the metatarso-phalangeal joints of the great toes. There was also marked periosteal edema and tenderness over the sternum and crests of the tibia.

The temperature in this case appeared to be due more directly to a condition of intestinal fermentation rather than to the local uterine condition, and rapidly subsided under a mercurial purge, and attention to the diet and digestion.

The urine, while in the hospital, had a sp. gr. varying between 1,022 and 1,030; was highly acid; at times contained a trace of albumen and a few hyaline and granular casts. Occasionally an epithelial cast was found.

Before taking up the treatment of these two cases in detail it may be well to consider first the natural methods by which hemoglobin is normally produced in the system, and the etiological factors that enter into the destruction of the hemoglobin, or prevent its formation in sufficient quantity to fully replace its natural disintegration.

It is becoming generally recognized that both iron and manganese cannot be absorbed from the healthy mucous membrane of the intestine and carried into the blood. The proof of this is absolute

with manganese, as this metal is not a part of the normal body, and is one of the inorganic substances that can easily be traced. It is equally so with the iron, but cannot be so readily demonstrated from the fact that iron is one of the constituents of the body tissue. Now iron cannot be supplied to the system from the inorganic world. This is further true by virtue of the law that synthesis is confined exclusively to vegetable life, while the chemistry of animal life is analytic destruction or oxidation reduction. Hence all the anabolic processes of the animal kingdom are simply due to the mechanical multiplication of the molecules and not to synthetic construction.

With these simple laws established and confined exclusively in their working to the proper domain in all the phenomena that are observed in both vegetable and animal life, much of the confusion experienced in the explanation of these intricate problems in connection with living things is dispersed.

This much conceded, it becomes necessary to look for the primary source of all material required in the construction of the animal organism, not in the animal kingdom, but in the earth and its vegetable and animal products; the latter coming, as it were, out of the former, but always as the result of an isomeric or an oxidation reduction process. In almost every instance the latter is the method pursued. Especially is this true in reference to the primary source of the iron and phosphorus-bearing compounds, which are necessary for the construction of the hemoglobin of the red blood corpuscles, and for the lecithin of the nerve tissue.

This iron and phosphorus-bearing compound has been found to exist in connection with the nuclei of the cells, as found in both animal and vegetable life, in the form of a substance that has received the name nuclealbumin. It was so named because it was first discovered in connection with the nuclei of cell life, and also because it was found to be composed largely of albuminous material. Yet nuclealbumin differs from the proteid bodies in general, in that it contains an atom of iron and phosphorus in its composition. Nuclealbumin is found as a common constituent of all cells, both in the vegetable and animal kingdoms. It is far more abundant, however, in the former than it is in the latter class, and it is especially abundant in the green vegetables and in the legumins. Nuclealbumin, like many others of the complex proteid class, is variously described by different investigators. A careful analysis of all these observations, however, indicates that nuclealbumin is a very complex and often polymeric substance, which, in its essential characteristics, more closely resembles the globulin series of the proteid bodies than any of the other proteids. It differs absolutely from the globulins, however, in this, that it contains in its complex composition both iron and phosphorus, neither of which is found to be present in a pure globulin.

The nuclealbumin formed in the cells of the vegetable kingdom is unquestionably the direct anabolic product of the synthetic processes that constitute chemical action as it is observed in plant

life. It, like the proteid of the vegetable kingdom, is a highly complex polymeric compound; while the nuclealbumin derived from the animal kingdom, like the proteid of animal origin, is always less complex or monomeric in its construction.

When this complex vegetable nuclealbumin is taken into the stomach in the form of food, it, like the proteid of vegetable origin, is acted upon by the digestive ferments and rendered less complex, being by this process so transformed that it can be taken up from the alimentary canal by the epithelial cells that go to form the mucous lining. In its passage through these cells, or after it has entered into the system, it becomes, in part at least, isomerically transformed into animal nuclealbumin, and finally appears as such in the milk, egg and various structures of the body. Other portions pass up to the liver and are there oxidized in the hepatic cells. In this manner the nuclealbumin is split up in accordance with the analytic theory of animal chemistry, thus forming the simpler forms of compounds, such as hemoglobin and lecithin, water, carbon-dioxide, etc., all of which are well known and easily recognizable substances. It is also highly probable that in this oxidation process the polymeric molecule gives place to the less complex or monomeric form of structure, thus explaining the formation of the simpler form of nuclealbumin as it is found in the animal kingdom. The hemoglobin contains the iron that previously existed in the nuclealbumin, and enters into the composition of the red blood corpuscles, thus giving to them their continuous supply of hemoglobin as rapidly as it is exhausted in its natural metabolic destruction. The lecithin contains the phosphorus, and it enters into the nerve tissue, either as one of the component parts of this structure or as an oxidizable food product for the direct stimulation of the nerve cells.

By this method of formation, the first logical explanation is given for the production of hemoglobin and lecithin in the physiological economy. Both of these substances have been developed in perfect harmony with the common laws of chemistry, as they are known to exist in connection with both vegetable and animal life. Their formation has been explained also, without introducing a number of highly speculative problems, all of which rest on absolute uncertainty.

It will be noticed also in this study of the nuclealbumins, that while they are more abundant in the vegetable than in the animal kingdom, they are more complex in the former, and it is further noticeable that those found in the animal substances can be more easily digested and assimilated. Consequently, those derived from the animal class of foodstuffs are the most economic for the system. When the total quantity of nuclealbumin in any foodstuff is inadequate for the demands of the system, which is true of most all substances in the animal class, an anemic condition of the animal economy must sooner or later follow the too exclusive use of the animal class. This fact is noticeable especially in the infant, in which the

only diet is milk. And as the milk is defective in the proper quantity of nuclealbumin, as the child advances from month to month it becomes anemic; hence the necessity for the addition of the animal class of foodstuffs as soon as they can be tolerated and utilized by the digestive organs. This different quantity of nuclealbumin in the animal class of foodstuffs is one of the conclusive proofs that the vegetable class must be added to the animal to secure the highest grade of nutrition. On the other hand, this line of argument does not prove that the vegetable class of foodstuffs is the most valuable. But to the contrary, it demonstrates conclusively that the vegetable class is the most difficult to digest, and, in consequence, may not yield a sufficient amount of proteid material to satisfy the demands of the system. Therefore, to secure the highest grade of nutrition, the two classes must be perfectly adjusted both as regards quantity and quality.

The theory just outlined, briefly summed up, is as follows: The intake and output of iron by the system is, comparatively speaking, very small; the iron in organic combination, commonly found in the foodstuffs as nuclealbumin, is the only source of iron supply to the system for the formation of hemoglobin; the amount of nuclealbumin as ordinarily contained in a well regulated mixed diet is far in excess of the requirements of the system daily.

If, now, for any reason, the nuclealbumin is decomposed in its passage through the alimentary canal before it is absorbed, then the system is deprived of the regular supply of this hemoglobin-forming compound, and the condition known as anemia will, of necessity, supervene.

On the other hand, if there is a too rapid escape of the hemoglobin from the body, as occurs in connection with hemorrhage, as illustrated in the second case, the loss of hemoglobin will be more rapid than it can be reproduced by the physiological laws already outlined. Consequently the symptoms, as here detailed, will be produced.

The first patient represents a class of cases that naturally come under the heading of medical anemias. They are usually due to three distinct causes, and may be classified:

First, anemia, as produced by taking too little food, or that which is deficient in the nuclealbumin.

Second, anemia that is due to the introduction of sulphur compounds with the food, or due to digestive disturbances in which the sulphur compounds are produced so abundantly in the intestine that the supply of iron in the nuclealbumin is completely exhausted in satisfying the sulphur compounds with iron.

(In either instance the natural supply of nuclealbumin, out of which hemoglobin can be formed, is destroyed or prevented from gaining access to the circulation and hepatic cells.

Third, that class of cases of anemia in which there is not necessarily any diminution in the foodstuffs, either as regards quantity or quality, or any excess of sulphur compounds in the

alimentary canal to destroy the nuclealbumin contained in the food supplied, where there is a disturbance in the chemico-physiological activity of the system, so that none of the foodstuffs, and particularly the nuclealbumin, can be oxidized and utilized properly by the animal economy. This condition is found in all the infectious diseases, and when microbic and toxic agents are introduced into the system. It occurs in all acute and chronic diseases of the circulatory and pulmonary system; in hepatic and renal affections. This condition is also encountered in the uric acid and oxalic acid conditions, in neurasthenia, rheumatism, diabetes, pernicious anemia, etc., etc.

In the class in which some positive toxic agents are introduced into the system, the poisonous compound not only causes an arrest of the normal metabolism, but it often produces a rapid disintegration of the hemoglobin, so that the anemia is due to both non-formation of hemoglobin and an abnormally rapid destruction of that substance. The same prevention of formation and concomitant destruction of hemoglobin is especially well marked in pernicious anemia. This double action is much less marked in the more chronic forms of imperfect metabolism and states of suboxidation.

All that is required in the first form of anemia—*i.e.*, that due to insufficient ingestion of foodstuffs—is a perfect adjustment of the diet as regards quantity and quality, and the kind of foodstuffs that can be digested and assimilated best by each special case. Remedies which will assist the enfeebled digestion, improve a weak circulation, and regulate an irregularly or imperfectly acting nervous system must be administered when required; and special attention must be given to securing the proper amount of outdoor exercise.

To give this class of cases the salts of iron—*i.e.*, assuming that there are no sulphur compounds in the alimentary canal to destroy the nuclealbumin before it can reach the blood-stream—would, with our present knowledge of the action of the iron compounds and the natural method of formation of hemoglobin, be useless. They might prove damaging to the system by disturbing the digestive function.

The second class of anemia is best treated by the same careful attention to the diet, the digestion, and the circulatory and nervous systems, and to securing the proper amount of outdoor exercise.

It is at this point that we discover the true explanation for the action and utility of the iron salts. So far as the possibility of the absorption of iron is concerned, it does not make any difference which one of the iron salts is introduced into the stomach, none of them is absorbed. If they act at all it is by their being acted upon in the stomach by the hydrochloric acid, and there converted into a chloride of iron. This is true alike of all the inorganic and the many so-called organic proportions, excepting possibly a part of the nuclealbumin contained in hemaboloids, which then follows the same course as that of the foodstuffs.

The absolute non-absorbability of the iron appears to be rather one of the wise provisions of Nature, by which toxic compounds in general are kept out of the system, unless they chance to gain access to the lymphatic or circulatory channels through a break in the continuity of the skin or mucous membranes. Ferric oxide, in combination with the organic acids, behaves in the same manner as the inorganic salts of iron.

The albuminates of iron, so-called, which, however, do not seem to be true chemical compounds, but simply variable and loose mechanical mixtures of iron and some proteid substance, are probably split up in the stomach by the gastric juice, with the formation of a chloride and a proteid body. Even if this is not the case, there is no evidence to show that they resemble the polymeric nucleoalbumin, or that they can be utilized by the system in a similar manner.

Thus we find that one by one all the vaunted preparations of iron fall into the same class, so far as their utilization by the physiological economy is concerned. The iron in them all follows the same course in its passage through the alimentary canal; the contained iron, be it an inorganic or a so-called organic compound, unless we are dealing with the nucleoalbumin as constructed by Nature, and even a part of this compound must be converted into a chloride by the action of the hydrochloric acid contained in the gastric juice before it can be utilized. This accomplished, the chlorides, and possibly all the soluble forms of iron, are quickly attacked by the sulphur compounds, and the iron, instead of entering the blood, appears in the feces in the form of a black sulphide of iron. Hence the black stools following the exhibition of any or all preparations of iron.

From the physiological and the experimental data at our command, it appears quite conclusively proved that none of the iron salts can be absorbed and utilized by the system. It is equally true that the only method by which iron is supplied to the system and utilized for the construction of hemoglobin, is by the absorption and oxidation reduction of the nucleoalbumin that is found in the foodstuffs.

The first case here reported is one which, from the clinical and therapeutic standpoint, demonstrates conclusively the reliability of iron therapeutics. From our present knowledge it is further clear why it should be so. We have in this patient one who has been closely confined, poorly nourished, constipated, and suffering from intestinal indigestion with the formation of sulphur compounds that have progressively destroyed the nucleoalbumin of the food, thus preventing the normal formation of hemoglobin until a profound condition of anemia has been established, commonly known as chlorosis, called by Sir Andrew Clark, constipation anemia. The treatment in this case has been practically, rest, with out-of-door exercise, a good, plain, nutritious diet, removal of the constipation by suitable laxatives, and the free administration of iron.

It is in this class of cases that the regular administration of the chloride of iron is indicated. This preparation is emphasized in preference to all other forms, because it most rapidly satisfies the sulphur compounds that are destroying the nuclealbumin and cutting off the natural iron supply, and also because it does not tax the gastric secretion to convert it into a chloride in its passage through the stomach. If any other iron preparation is used to meet the indication in these cases it must be such a one as can be easily converted into a chloride, or that will reach the intestine in a soluble form; otherwise the sulphur will not act upon it, and it will consequently be a useless drug. The only reason, from a practical and scientific standpoint, that can be urged logically as justifying the use of any other preparation, aside from the chloride, excepting possibly the hemaboloids, which, however, is a solution of nuclealbumin, and should be classed more as a concentrated food than as an iron preparation, is the fact that the latter may disturb the digestive functions, and prevent the utilization of the normal food-stuffs. When this is the case some one of the other preparations of iron may be well borne by the stomach, and thus act more efficaciously.

The chloride, however, strikes more directly at the cause of the anemia than any other preparation.

The results have been quite satisfactory under the influence of the chloride, the blood count on February 8th, 1899, being 3,600,000 to the cb. m.m., and the percentage of hemoglobin had risen to seventy-five. On February 25th the blood count was 4,040,000, the percentage of hemoglobin being the same as at the last examination. On March 7th, 1899, the blood count was 4,320,000, the percentage of hemoglobin remaining the same.

The third class of cases requires the same attention to diet and digestion, etc., as the two preceding. Exercise, of course, cannot be taken in all cases, but the best possible supply of pure air should be secured under all circumstances. The inorganic salts of iron, however, are of no avail unless there is an excess of the sulphur compounds in the alimentary canal. Aside from this they are useless, and to administer them is to waste material and money, and in all probability damage an already weakened digestive system. Certain it is they are of no value.

In this class of cases, however, the concentrated solution of nuclealbumin often proves of great value.

In the second case the most important treatment was to arrest the leakage of hemoglobin from the system, which was done by the curettage and packing. This accomplished, the surgical aspect of the anemia disappeared. While a surgical case, the anemia belonged to the first class, or rather it was a case in which the output from the system of the hemoglobin was greater than the supply of nuclealbumin, and the ability of the system to convert it into hemoglobin. To this was added a certain amount of intestinal indigestion and sulphur destruction of the nuclealbumin. This

latter etiological factor was not removed by the surgical operation, hence the need for medical intervention, as well as the surgical. The medical treatment consisted in the use of laxatives, digestive ferments and a salicylic acid mixture.

The latter disturbed the digestive system so much that it had to be suspended. Later it was replaced by the mixed treatment, which was well borne. The iron preparation used in this case was the pilulæ ferri compositæ. Unfortunately, blood counts were not made in this case, but the improvement was so rapid and marked that it was not needed to demonstrate the rapidly improving condition.

In a case like this, almost any iron preparation would have given brilliant results.

With the removal of the cause of the anemia, attention to the diet and digestion, the use of iron was not absolutely needed, but to satisfy any sulphur compounds that might be formed and aid in retarding recovery it was given. In three weeks the patient was changed from a dying condition to one of rapid and almost complete restoration to health.

II.—INTESTINAL INDIGESTION, WITH IMPERFECT HEPATIC ACTION.

Under this heading are grouped a number of cases which, while they present quite a variety of symptoms, have as the chief causative factor in producing the many and varied symptoms, an intestinal indigestion associated with a faulty action of the liver; in fact, we may say, a faulty action of the whole physiological economy.

The principal line of treatment in these cases has been dietetic and medicinal, with a view to re-establishing a more nearly normal digestion and assimilation. Under this heading we find a large class of cases, of which no mention is made in the ordinary textbooks. Hence, the necessity of taking up the subject in considerable detail, to illustrate how much can be done for these patients if they are correctly apprehended. In fact, a thorough understanding of this one department in the science of medicine is absolutely essential for the most successful treatment of all classes of cases, acute or chronic, medical or surgical. It is in the chronic cases, however, that we observe the most pronounced results from well directed dietetics and therapeutics. In the acute cases and in surgical practice the natural tendency is to recovery or death, within a reasonably short space of time. On the other hand, with the chronic medical case it is not common to have a speedy recovery; but a long-drawn-out miserable condition, which is even worse than death, is the common course, if not arrested by the skill of the therapist.—*N.Y. Post-Graduate.*

DR. HARRY SHERMAN, of San Francisco, has been elected President of the American Orthopedic Association.

Proceedings of Societies.

THE ONTARIO MEDICAL COUNCIL 1899 MEETING.

THE thirty-fourth annual session of the Medical Council of the College of Physicians and Surgeons of Ontario was opened on the afternoon of July 4th, in the hall of the college building, Dr. L. Luton, President, in the chair. The following members were present: Drs. E. J. Barrick, Toronto; J. L. Bray, Chatham; W. Britton, Toronto; L. Brock, Guelph; C. T. Campbell, London; W. W. Dickson, Pembroke; W. J. H. Emory, Toronto; W. B. Geikie, Toronto; S. H. Glasgow, Welland; H. S. Griffin, Hamilton; J. Hanly, Midland; G. Henderson, Strathroy; J. Henry, Orangeville; J. W. Lane, Mallorytown; L. Luton, St. Thomas; A. A. Macdonald, Toronto; V. H. Moore, Toronto; W. H. Moorhouse, London; J. W. McLaughlin, Bowmanville; J. A. Robertson, Stratford; W. F. Roome, London; J. H. Sangster, Port Perry; P. Stuart, Milton; M. Sullivan, Kingston; J. Thorburn, Toronto; T. H. Thornton, Consecon; J. A. Williams, Ingersoll.

Dr. Luton, the retiring President, made the annual address before vacating the chair. He said, amongst other things:

"As this is the only opportunity I shall have of addressing you in my official capacity as President of the Council, I now express my thanks for what I consider the high honor which you conferred upon me. Before proceeding with the session I feel certain that you will join with me in taking the earliest opportunity of expressing regret at the absence of several familiar faces in this chamber. I am pleased, however, to be able to say that during my year of office not one of the members of the Council has passed over to the great majority, and while some are absent to-day with whom we worked in former years, all I can say is that, though we regret it, we welcome the new members to this Council, and I do not think I can pay them or those that are not here any greater compliment than to say I trust the new members will have the interests of the profession and public at heart as much as those who preceded them.

"During my term of office I have endeavored to keep myself in close touch with all that was taking place, and as the curriculum of the Council is most important I beg leave to ask urgent consideration on the part of the Council of the present curriculum, particularly in reference to the fifth year, as I have serious doubts in my mind that the good the Council sought in establishing the fifth year has been secured—in fact, its efficacy in producing better

medical men, as now prescribed, is to me very doubtful. I must here point out to the Council that the fifth year examination entails very much more work on the Board of Examiners, and therefore causes increased expense to the Council. As you are aware, now that the fifth year is being carried on, no provision was made for any revenue to be derived therefrom, the fifth year examination being practically free to the candidate. If I succeed in getting the Council to consider this whole matter I shall feel I have accomplished my purpose. I wish to point out to you in relation to this subject that if interprovincial reciprocal registration is to be brought about—and I think we are all aware of the desirability of securing that condition of affairs in this Dominion—then I think if the fifth year were done away with this much desired object might be more easily accomplished. The examinations were conducted thoroughly and in an efficient manner. I am delighted to be able to inform you that the annual assessment has been responded to by nearly fifteen hundred members of the College paying up all arrears. The Council building shows a fair rental, much like last year, and from the approaching completion of the Court House and city and county buildings I would look for the rents increasing. While on the matter of the building I must remind you that the extension of the mortgage on the building will expire in November next, so that your Building Committee will have to be directed by your counsel to take action as to renewal or otherwise. I think we are near a time when the building can be disposed of to advantage; however, Property Committee's report will deal more in detail with this matter, and all matters concerning the welfare and position of the institution will be taken up more fully by the different committees.

“Prosecutions have been carried on with considerable vigor, and a large number of cases disposed of, as the prosecutor's report will show. There are a number of letters received by the prosecutor, the registrar and myself that will be attached to his report. You no doubt are aware of an application having been made to the Legislature by Mr. Zielinski, asking to be registered as an eclectic practitioner. It was not deemed necessary to call the Executive or Legislation Committee together. The report of the Executive Committee will deal more fully with the matter. I thank you, gentlemen, for the uniform kindness and assistance which I have received from each and every member of the Council, and retire from the Presidency with the kindest recollection and memory of the same.” (Applause.)

Dr. Moore moved, seconded by Dr. Moorhouse, that Dr. Roome be elected President for the ensuing year.

In amendment, Dr. Williams, seconded by Dr. Dickson, nominated Dr. Henry for the position.

A vote was taken on the motion, and Dr. Roome was elected by fourteen votes to thirteen.

Dr. Britton was elected Vice-President without opposition.

Dr. Pyne was reappointed Registrar, Dr. H. W. Aikins, Treasurer, and Mr. B. B. Osler, Solicitor.

The Nominating Committee reported the following standing committees for the year:

Registration—Drs. Campbell, Hanly, McLaughlin, Powell Robertson, Sullivan, Stuart.

Rules and Regulations—Drs. Hanly, Lane, Logan, Henry, Barrick.

Finance—Drs. Henderson, Douglas, Griffin, Bray, Glasgow.

Printing—Drs. Barrick, Stuart, Macdonald, Emory, McLaughlin.

Education—Drs. Moorhouse, Dickson, Geikie, Henry, Emory, Brock, Sangster, Moore, Williams.

Property—Drs. Thorburn, Williams, Campbell, Thornton, Dickson.

Complaints—Drs. Griffin, Thorburn, Luton, Macdonald, Douglas.

The report was adopted.

Dr. Barrick gave notice of a motion for the Council to consider as to the disposition of the consumptive poor.

Among the communications read was one from Mr. Zielinski, asking that the Council pay the expenses of his application to the Legislature for a special Act to enable him to practise.

This letter created much merriment, and one member suggested that it be referred to the committee on "cheek."

The Council adjourned till next morning at ten o'clock.

SECOND DAY.

The Council, when it met for its morning session on July 5th, discussed the question of the best means of dealing with tuberculosis among the poor. It seemed to be the opinion that the Council had no power to legislate on the subject, so a resolution was passed calling the attention of the Provincial Legislature and the profession at large to the matter. A proposition to agitate for legislation requiring peddlers of medicine to be licensed, was referred to the Registration Committee.

At the morning's session the first business transacted was the hearing of Dr. Stark in reference to a resolution passed by the County Council of Dundas, Stormont and Glengarry, asking the Medical Council to co-operate in obtaining legislation compelling peddlers of patent medicines, etc., to take out licenses from the treasurers of the counties in which the goods are sold. He explained that the idea was to place travelling quacks under supervision, in the interests of the public, and to have it enacted that every bottle or package of medicine sold by itinerants must bear a label giving the formula of its ingredients. He said that the poor sick in the country were victimized by peddlers, who sold them so-called medicines, which were simply trash.

The matter was referred to the Registration Committee.

Dr. Barrick moved that the following committee be appointed to consider the best means of dealing with consumption among the poor, and providing funds therefor: Drs. Williams, Sangster, Moorhouse, Campbell, Dickson, A. A. Macdonald, Glasgow, Lane, Stuart, Robertson and the mover. He said that this was a most important question, which had been taken up in Parliament and municipal politics, and had been the subject of a congress in Germany. The matter was of national importance and should be dealt with by the Government. He hoped the Council would consent to his motion.

Dr. Moorhouse seconded the motion. He thought they should place themselves on record in regard to a subject which was engaging the attention of the world.

Dr. Moore said that the Council had no power to deal with the subject, and it would be wasting time to discuss it as a body. It cost \$62 an hour while the Council was sitting.

Dr. Sangster thought that the Council had a perfect right to express an opinion on a subject which was so specially within the domain of the medical practitioner.

Dr. Thorburn sympathized with the object of the resolution.

Dr. Geikie moved in amendment, that the subject of the best methods of dealing with cases of tuberculous consumption, in all cases, especially among the poor, who can do little or nothing for themselves in the way of treatment, and whose uncared-for cases tend to spread the disease largely, is one to which this Council desires to call the attention of the legislatures and professors of the provinces.

Dr. Barrick said a general expression of opinion would be of little value. He had desired to have the matter carefully considered by a committee and then discussed in Council, so that the decision arrived at would command respect.

Dr. McLaughlin concurred in the view that they had no power to deal with the matter. But if the Council did anything they should do it well.

Dr. Brock said that in 1895 he had called attention to the danger of allowing carbolic acid to be sold without proper labelling. He was ruled out of order on the ground that the Council had no power to deal with the subject. Time had proved that he was right in his note of alarm, for hundreds of people had since been accidentally poisoned by the acid. So far as tuberculosis was concerned, the Council, technically speaking, could not legislate.

Dr. Barrick said the topic was a live one in Toronto itself. It cost the city thousands of dollars to keep in charity the orphans made by this disease, and the Health Board were desirous of getting all the light they could on the subject. The suggestion of a representative body of medical men like the Council must have weight with the public.

After further discussion, Dr. Geikie's amendment was carried, with an addition providing that the resolution be forwarded to the Ontario Government.

Dr. Brock moved that the question of the appointment of examiners and the limiting of the time of such appointment be referred to the Education Committee, with instructions to report.

Dr. McLaughlin said that the matter required consideration. Some of the examiners had occupied their positions for six years, and he thought that other competent men should have a chance of being placed on the Board. He favored a limitation of the time.

Dr. Moorhouse thought that when an examiner was doing his work well he should be allowed to retain his position as long as reasonable.

In the course of the discussion, Dr. Bray said he had received a letter from Dr. Fraser, examiner of Physiology, stating he could no longer hold the position, and must resign.

Dr. Britton testified to the general satisfaction which Dr. Fraser had given as an examiner.

The motion passed.

Dr. Bray, from the Discipline Committee, reported, asking that they be instructed to make an investigation into the charges of unprofessional and disgraceful conduct alleged to have been committed by Drs. R. Sproule, W. L. Hamill, A. J. Stuart and J. H. Watson, all of Toronto.

Upon the President taking the chair in the afternoon a motion by Dr. Campbell, providing that graduates of any recognized colleges in the United States and the British Empire may present themselves for examination at any time, but are not to be registered till they have matriculated in the full curriculum of the College, was referred to the Education Committee.

Dr. McLaughlin moved a resolution of sympathy and condolence with Dr. Logan in his affliction, expressing the hope that he may be sufficiently recovered to resume his seat next session of the Council. Carried.

The Committee on Property reported, recommending that certain repairs be done to the Council building. Negotiations were in progress for its sale and conversion into a technological college. The building, after eleven years' use, was in excellent condition. The revenue of the building had been \$3,131, exclusive of taking into account the portion occupied by the Council and its officers.

The Council adjourned till ten o'clock Thursday morning.

THIRD DAY.

The Council transacted a good deal of business during its third day's session, but principally of a routine character. Nearly the whole of the evening session was taken up in establishing the rules of order and procedure to govern meetings of the Council. In the afternoon, the annual fee for members of the profession was fixed at \$2.00.

On the reassembling of the Council in the morning, Dr. Bray

introduced a by-law to change the date of the examinations of the College to the third Tuesday in April, thus putting them forward one month.

In Committee of the Whole, Dr. Williams objected that the change would cut down the session from eight months to seven months. The by-law should not pass, at any rate, unless the length of the session were reduced accordingly.

Dr. Britton moved in amendment that the date be the first Tuesday in May. The original proposal, he said, would interfere with the completion of the college course.

After some discussion, the committee rose and asked leave to sit again. The matter will be discussed again on the report of the Educational Committee.

Dr. Brock rose to a question of privilege, and corrected an error in the report of his speech on the examiners in an evening paper.

The Registration Committee reported, endorsing heartily the proposition of the United Counties of Stormont, Dundas and Glengarry, in reference to the regulation and licensing of the sales by peddlers of medicines. They reported adversely to the application of Messrs. Bessey, Gray, Clark and Carter to be replaced on the register. The report was adopted.

Dr. Bray moved the adoption of the Discipline Committee report presented the day previous, authorizing the investigation of charges of unprofessional conduct.

On motion of Dr. Brock, the Registrar was instructed to prepare a full index in connection with the future official reports of the Proceedings.

The first business in the afternoon was the consideration of a motion of Dr. Macdonald, appointing the following committee to deal with the subject of misleading medical advertisements: Drs. Glasgow, McLaughlin, Bray and Robertson. In making the motion, Dr. Macdonald said many of the medical advertisements offered remedies and treatment which would cure all the diseases known. Ignorant and credulous people were defrauded and often seriously injured by neglect to have proper treatment, owing to reliance on these advertisements. The motion was carried.

The Discipline Committee was elected as follows: Drs. Bray, Moore and C. T. Campbell.

Dr. Macdonald moved that the regulations of the curriculum be amended so as to require candidates for license to practise to have administered anesthetics at least five times, under the guidance of an approved practitioner. He pointed out that the administration of anesthetics was so important an operation that students should not be allowed to practise until they had been educated in their proper application.

Dr. McLaughlin said that something should be done to give students a better education in this subject than was at present required. Referred to Education Committee.

Dr. Williams introduced a by-law for levying the annual fee from members of the College.

Dr. McLaughlin said he had always been in favor of paying fees, provided that those who received them were always amenable to the votes of those who paid them. It was a good old principle that those who levied taxes should be responsible to those who were taxed.

Dr. Williams said he supposed the Legislature knew what they were doing when they gave the Council power to levy fees. It was rather late to discuss the abstract principle.

In Committee of the Whole the fee was fixed at \$2.00 a year for each member.

The by-law was passed through committee and finally adopted.

Dr. Williams inquired if the past by-law levying a fee was carried out every year. He understood there were many difficulties. Why was the law not enforced?

Dr. Pyne said that up to the present time no names had been erased from the register for non-payment.

Dr. Williams said that the Registrar should be instructed to enforce the law.

Dr. King thought that a distinction should be made in the case of those who had partially paid their arrears.

The matter was allowed to drop.

Dr. McLaughlin introduced a by-law appointing James Carlyle, of Toronto, Auditor of the Council, with a fee of \$40. The by-law was adopted.

On motion of Dr. McLaughlin, the Council went into Committee of the Whole on the by-law to amend By-law No. 39. This by-law presented rules and regulations for conducting the proceedings of the Council.

Dr. Williams moved an amendment providing that the officers shall be elected by ballot instead of by open voting.

Dr. McLaughlin said that the members were representative of certain people, and they should vote in such a way that their conduct would be no secret to their constituents. He therefore opposed the amendment. On division, it was lost.

Dr. Thorburn presented the report of the Committee on Infractions of the Medical Act. It stated that sixty-five cases had been prosecuted and investigated; that there had been seventeen convictions; that seven left the country, eight paid fines, and four were sent to jail. Attention was called to the fact that communications from medical men respecting infractions of the Medical Act were always treated confidentially. Several complaints made about alleged unregistered practitioners had proved to refer to fifth-year students, who appeared to be in regular practice.

The Registration Committee reported in favor of admitting to registration Dr. Dickson, and Messrs. J. W. Stanley and George Balmer. The report was adopted. It was decided to have the offices of the Council lighted by electricity. The Council adjourned till ten o'clock next morning.

FOURTH DAY.

The Council at its fourth day's session discussed at some length the advisability of disposing of the College building on Bay Street, on which there had been an average annual tax of more than \$3,000. It was finally decided to authorize the Property Committee to take whatever steps they deemed advisable, either to dispose of the property or, if possible, obtain a lower rate of interest on the mortgage. A young student who had been guilty of personation at an examination in 1896 was given permission to present himself at the examinations of the College, it being held that the circumstances justified a lenient course being adopted. Various reports were received or passed.

Upon the opening of business in the morning, Dr. Geikie introduced a resolution respecting interprovincial registration, but, on motion of Dr. Williams, it was held over to await the report of the Registration Committee.

Dr. Bray moved that the Property Committee be instructed to make the best terms possible with regard to the mortgage on the building.

Dr. Sangster thought that the committee should be authorized to go further, and even have the mortgage foreclosed. The building was a white elephant on their hands, and had caused several deficits, in one case amounting to \$4,000. They had been led on by elusive hopes that the revenue would increase, but, in view of the enormous building which was to be erected on Teraulay Street, which was to be let out in offices at \$50 a year, the revenue would probably decrease.

Dr. Barrick moved that the following words be added to the motion: "And to take such steps as may be advisable in disposing of the property."

Dr. Thorburn deprecated any sacrifice of the property. He thought that, with the continued prosperity of the city, the property would increase in value.

Dr. Thornton said they would always have been in a better position if they never had owned the building. If the Canada Life Company were now to make them a present of the mortgage, they would still be out of pocket.

Dr. Brock said that the building was a necessity to the Council, and even if it cost a little to keep up, it should be retained. The profession were taxed only \$2, and was it not appropriate to the dignity and importance of the profession that its representative body should have a worthy home?

Dr. McLaughlin said they had already lost \$35,000 on the building, and the sooner they realized the better. No private speculator would have retained the property.

Dr. Moore said that the profession were proud of the building. Were they to retreat to some disgraceful little shed in some back

street? They would be foolish to dispose of the property in a rising market.

The motion as amended was carried.

On motion of Dr. Campbell the following committee was appointed to take cognizance of matters introduced into the Legislature respecting the interests of the profession: Drs. Glasgow, Thorburn, Emory and the mover.

Dr. Harvey called attention to a case of hardship, in which a doctor on the order of a coroner had performed a *post-mortem*. In the meantime the warrant for the inquest had been withdrawn, unknown to the doctor, who was sued by the friends of the deceased, and heavy damages given against him.

The Finance Committee reported a slight improvement in the affairs of the Council for the past year. Nearly all the rooms in the building were now let. The assessment dues uncollected were \$7,200. The fees for professional examinations had amounted to \$9,170, and the expenditure on same account \$2,678. The balance on deposit was \$490. The assessment dues collected had been \$3,250. The Council meeting of 1898 cost \$2,578. The report was adopted.

At the afternoon session a by-law was introduced dealing with the election of the Executive Committee. Dr. Douglas suggested that the membership should be increased from three to five. Dr. Williams contended that the committee did not meet often enough nor do enough business to make it important that the membership should be increased. Dr. Powell moved that the matter be postponed to a later stage, and after some discussion this was agreed to.

Dr. Bray introduced a by-law in blank to fix a date for the examinations. The idea was to select an earlier date than at present, but in the course of the discussion it was pointed out that the university and other teaching bodies would be inconvenienced in their present arrangements by the suggested change. Dr. McLaughlin called attention to the fact that it was required that students should attend seventy-five per cent. of the lectures in a course at the colleges, and that it was understood that in some cases certificates were granted when students had attended only from Christmas time. The committee rose without coming to any decision.

The case of Mr. F. J. Doherty, who petitioned to be allowed to have the right of taking the examination of the Council, was then considered. It appears that Mr. Doherty was convicted at the Police Court of personating a student at the examinations of Trinity College in dentistry, and was sentenced to a term in prison therefor. The University of Toronto had since reinstated him in regard to their examinations, it having been shown that at the time he was only seventeen years of age, and had offended to oblige a friend, and was, moreover, unaware of the enormity of his act. Mr. Thomas Mulvey, barrister, was heard on his behalf, and while admitting that the boy had got \$15 for what he had done, said that

he had not volunteered to personate at the writing, and that the offence had occurred as far back as 1896. His was the first offence tried under that Act. Having been punished enough, he (Mr. Mulvey) asked that he might be permitted to register as a student and attend the examinations of the Medical Council. Dr. McLaughlin said that as the University of Toronto could afford to forgive the lapse, he thought that the Medical Council could be equally lenient. Dr. Moorhouse expressed a similar opinion, and after some discussion the petition was granted.

Dr. Brock brought forward his motion to instruct the Registrar to strike off the register practitioners who did not pay the annual fee.

Dr. Sangster argued that there was no need for such a resolution, as the Registrar had already power to act, if need be.

Dr. Williams said that many in the profession objected to pay because they knew that others were not compelled to pay. It would be well to let these people know that action would be taken in the case of defaulters without further warning.

Dr. McLaughlin repeated his former objection to the proposition. People who were taxed, he thought, should have a controlling influence over those to whom they paid taxes.

The resolution was ultimately carried by a vote of 18 to 3.

A vote of thanks was passed unanimously to the retiring President, Dr. Luton, for his admirable address.

On the reassembling of the Council, a resolution introduced by Dr. Geikie was passed, expressing sympathy with the family of the late Dr. J. E. Graham, who had passed away in the afternoon, and also regret at the loss the profession had sustained in the death of one of its brightest ornaments and most esteemed members. Drs. Moore, Thorburn and Bray re-echoed the sentiments of the resolution.

By-law 39 was amended so as to fix the day of the meeting of Council on the second Tuesday in June.

Dr. Sangster moved that the number of members of the Executive Committee be increased to five, three of them to be territorial representatives. He said there was a good deal of feeling on the subject among the profession, who thought they should have the same influence on the committee as they had in the Council.

Dr. Williams did not think the rural constituencies wished for any such favored legislation. It was a mistake to think that the college men dominated the Council. The motion was lost. The President, Vice-President and Dr. Henderson were appointed the Executive Committee for the ensuing year.

Dr. Williams presented the report of the Committee on Inter-provincial Registration. It stated that at the conference at Quebec between representatives of the medical profession of the various provinces, it was decided to recommend a scheme for the formation of a Dominion Medical Council, when Dominion registration could be obtained under certain conditions, or the passing of an Act by

the Dominion Parliament creating a body with similar functions. It was pointed out incidentally that Dominion registration would make a Canadian practitioner eligible for appointments in the Imperial army and navy medical service. The Council adjourned till ten o'clock Saturday.

FIFTH DAY.

The Ontario Medical Council finished their work of the session on Saturday afternoon, the 8th of July, having worked hard for five days. The principal business transacted was the passing of the report of the Committee on Education, which, among other things, increased the number of lectures to be attended in a course and nominated the new Board of Examiners. The Council expressed approval of the suggested scheme for interprovincial registration, providing it could be secured on equitable terms, and decided not to meddle with the matter of lodge practice,

At the morning session the business opened with the appointment of Drs. Thorburn, Geikie, Emory, Barrick and Macdonald on a committee to confer with the official prosecutor in regard to infractions of the Medical Act.

Dr. Barrick presented an interim report of the Committee on Lodge Contract Practice, asking that they be allowed till next year to make their final report, in order to obtain information from fraternal societies and registered medical practitioners.

Dr. McLaughlin saw no use in communicating with fraternal societies on the subject. It would be stirring up a hornet's nest. The question was dangerously near the border-line between professional and unprofessional conduct when doctors gave their services to lodges for next to nothing.

Dr. Moore said it was not the business of the Council to deal with the matter, which should be left to the medical societies.

Dr. Thorburn recommended that the question be left alone. It was too risky to meddle with it.

Dr. Powell said the only way to offset the evil was to educate the profession by teaching them that by accepting the positions referred to at nominal prices they were cutting their own throats.

Dr. Bray agreed that it was useless to do anything till they convinced the members of the profession that they were fools not to demand regular fees.

Dr. Barrick remarked that for years past they had heard the cry that the Council could do nothing. The committee did not propose legislation, but asked authority to get information, and get opinions, both from the lodge and from the medical standpoint. If necessary, have a conference of both sides, to see if some reasonable settlement could not be arrived at.

Dr. Campbell asked what was the good of obtaining information if they could do nothing with it after they got it. The only infor-

mation of value would be to get the opinions of the profession at large. He moved that the report be laid on the table.

Dr. Bray said the members of the profession had the remedy in their own hands by refusing this lodge practice. The only other remedy was discipline, and who would think of disciplining the large army of lodge doctors?

Dr. McLaughlin said that the profession expected the Council to do something. But they must leave fraternal societies alone, or they would have 200,000 men in the streets of their towns and villages talking about what the Council was going to do.

Consideration of the report was suspended.

The Education Committee brought up their report recommending that several petitions for matriculation registration be granted, and that others be refused, the reasons being set forth in each case. It was also recommended that a candidate in the recent examinations, mentioned by number only, who had been detected in using a note book, should have his examination fees forfeited and be prohibited from writing again till 1902.

The consideration of the report was continued through the afternoon session. The committee in their proposed amendments to the rules and regulations on the curriculum recommended that the six or eight months' course mentioned in section 2, subsection 4, should consist of not fewer than one hundred lectures instead of fifty, and that each three or four months' course should include fifty. This was amended to read eighty and forty lectures respectively. In the matter of fees the primary were increased from \$20 to \$30, and the intermediate were made \$30.

The fall examinations were fixed for the third Tuesday in November, 1899, at the College in Toronto, and those at the City Hall, Kingston, on the second Tuesday in May, 1900.

The Board of Examiners were appointed as follows:

Dr. H. B. Anderson, Toronto, anatomy, descriptive; Dr. D. E. Mundell, Kingston, theory and practice of medicine; Dr. H. Howitt, Guelph, midwifery, operative and other than operative, and puerperal diseases; Dr. A. Primrose, Toronto, physiology and histology; Dr. J. W. Edgar, Toronto, surgery, operative and other than operative; Dr. William Gunn, Clinton, medical and surgical anatomy; Dr. G. Charters, Toronto, chemistry, theoretical, practical, and toxicology; Dr. J. W. Schooley, Welland, materia medica and pharmacy; Dr. J. H. McLellan, London, medical jurisprudence and sanitary science; Dr. J. Third, Kingston, first assistant examiner to examiner on medicine, diseases of children; Dr. S. H. Fields, Cobourg, second assistant to examiner on medicine, pathology, therapeutics and bacteriology; Dr. E. T. Adams, Toronto, homeopathic examiner.

The report of the Committee on Interprovincial Registration was again taken up. After some discussion the Council declared itself in favor of interprovincial registration on equitable terms, and expressed itself favorably impressed with the scheme for a

Dominion Medical Council. It was recommended that there should be a uniform standard of qualifications, and the following committee was appointed to take any further steps in the matter necessary: Drs. Williams, Dickson, Thorburn and Emory.

The Committee on Lodge Practice was discharged.

On motion of Dr. Moore a vote of thanks was passed to the President, Dr. Roome, for the able and impartial manner in which he had presided over the deliberations of the Council. The President returned thanks in a few felicitous words and the Council adjourned.

CANADIAN MEDICAL ASSOCIATION THIS MONTH GOING TO BE A "HUMMER."

THE thirty-second annual meeting of the Canadian Medical Association will be held at Toronto on Wednesday, Thursday and Friday, the 30th, 31st inst., and September 1st, next.

Through the kindness of the Honorable Minister of Education for Ontario, the building of the Education Department has been placed at the disposal of the Association, and in it the meeting will be held. This building is most centrally situated, as the Church Street cars pass the building, and the Yonge Street line is but one block away.

The programme will be of exceptional interest, and the very important subject of Inter-Provincial Registration will receive full discussion at this meeting.

A number of entertainments have been provided for, including a Reception and Musicale for members and their friends on the first evening; an Afternoon Tea at the Royal Canadian Yacht Club on the Island, and other entertainments.

The Association will be the guests of the City of Toronto on Thursday evening, when members and their friends are invited to attend a Smoking Concert on board one of the large Niagara steamers during a sail of a couple of hours on Lake Ontario; the pyrotechnic display at Exhibition Park will be witnessed from the deck of the vessel. On Friday afternoon the Association will be entertained by the President and Directors of the Toronto Industrial Exposition at Exhibition Park.

There will be an exhibition of instruments, drugs and physicians' supplies in connection with the meeting.

The Committee of Arrangements is making every possible effort to insure a successful meeting, and trusts that there will be a very large attendance. As the meeting is held during the first week of the Industrial Exposition, railway tickets to Toronto and return may be obtained at reduced rates (single fare throughout Ontario). We earnestly urge upon the members of the profession, *to a man*, to turn out to this meeting and make the thirty-second annual gathering by a long way the biggest on record.—[Ed.]

PROGRAMME.

The President's Address will be delivered either on the afternoon or on the evening of the first day by Irving H. Cameron.

The address in Surgery will be given by W. B. Coley, of New York.

The address in Medicine by J. T. Fotheringham, of Toronto.

In the Skin Clinic, G. Chambers and A. McPhedran, of Toronto, and A. R. Robinson, of New York, and others will take part.

The following is a partial list of the papers to be read :

"The best method of dealing with the consumptive poor." E. J. Barrick, Toronto.

"Floating kidney simulating disease of the ovaries and tubes." A. Laphorn Smith, Montreal.

"Observations on adenoids and enlarged tonsils and their removal, with notes of eighty cases in private and hospital practice." D. J. Gibb Wishart, Toronto.

"The methods and ultimate results of operations for halux valgus." N. A. Powell, Toronto.

"Report of a case of abdominal pregnancy." H. Meek, London.

"An experience in formaldehyde disinfection." F. Montizambert, Ottawa.

"An inquiry into the etiology of chronic Bright's disease." A. G. Nicholls, Montreal.

"Operations for extra-uterine gestation." H. H. Chown, Winnipeg.

"Tuberculosis in cattle and its prevention." J. George Adami, Montreal.

"The hospital room in each dwelling." W. J. Telfer, Montreal.

"The treatment of spina bifida." Geo. A. Bingham, Toronto.

"Complications and treatment of fractures of the skull." J. M. Elder, Montreal.

"Recurrent paralysis of the third nerve (Charcot's ophthalmoplegic migraine)." J. W. Sterling, Montreal.

"Tuberculosis and insurance." J. Hunter, Toronto.

"(a) Typhoid infection without intestinal lesion; (b) Gastropnoxis." A. McPhedran, Toronto.

"Some observations on the treatment of cancer." A. R. Robinson, New York.

"Gall-bladder surgery." J. F. W. Ross, Toronto.

"Typhoid epidemics I have met." Wyatt Johnston, Montreal.

"The treatment of cataract." R. A. Reeve, Toronto.

"Christian Science." J. H. Richardson, Toronto.

"Anesthesia by chloroform and ether." Wm. B. Jones, Rochester.

"Treatment of the acute digestive disorders of infancy." A. R. Gordon, Toronto.

"Rhinoliths." Hubert D. Hamilton, Montreal.

"Observations on the relations of the thyroid-gland to the uterus." C. R. Dickson, Toronto.

"The question of operation on thyroid tumors." Geo. A. Peters, Toronto.

"A case of malignant disease of the gall-bladder, simulating hydronephrosis (feeding through the gall-bladder for three days)." F. N. G. Starr, Toronto.

Papers have also been promised by A. L. Benedict, Buffalo, J. M. MacCallum and J. J. Mackenzie, of Toronto, and a number of others.

During the meeting, T. G. Roddick, of Montreal, will address the Association on the subject of "Dominion Registration."

The Pathological Museum, in charge of a committee with A. Primrose as chairman, will add much to the interest of the meeting. A great many specimens have been promised, among which are the following :

Lower half of rectum removed for cancer. A. L. Smith, Montreal.
 Ectopic pregnancy. H. Meek, London.
 Extra-uterine gestation, and others. H. H. Chown, Winnipeg.
 Rarer forms of aneurism. Hearts. Calculi. Disease and fractures of bone, and others. J. Geo. Adami, Montreal.
 Cast of hand from a case of acromegaly. J. M. MacCallum, Toronto.
 Congenital atresia of small intestine. W. B. Jones, Rochester.
Eustrongylus gigas in kidney of mink. Formaldehyde preparations. Dry anatomical preparations. F. N. G. Starr, Toronto.
 Obstruction of colon by large gall-stone. Superfoetation, abortion at 4th month, 2 sacs 4 months and 6 weeks. Elevated fracture of skull. Heart and aorta. Fusiform dilatation of latter due to syphilitic endarteritis. Carcinoma of prostate with terminal suppurative cystitis. Columnar-celled carcinoma of stomach. Diffuse infiltration from cardiac to pyloric orifices. Solid ovarian tumor (Filseio-Myo-Sarcoma) twelve pounds, etc. W. T. Connell, Kingston.

Lung—Chronic tuberculosis, Acute miliary, Tubercular broncho-pneumonia, etc. *Female Generative Organs*—Adhesions of pelvic organs, Pyosalpinx, Cysts, Tumors, etc. *Bladder Urinary*—Prostatic changes, Sacculations, Calculi, etc. *Bladder Biliary*—Hydros, Calculi, etc. *Kidney*—Cirrhotic changes, Cysts, Tumors, Hydronephrosis and Pyonephrosis, Calculi, Tuberculosis, Anomalies and faults. *Esophagus*—Stricture, New growths. *Stomach*—Ulcer simple, Carcinoma. *Intestine*—Adeno-carcinoma, Colitis, Enteritis chronic, Typhoid changes, Tubercular ulcerations. *Appendices: Heart*—Anomalies and developmental faults, Pericarditis, Myocarditis, Myomalachia cordis, Endocarditis, Chronic valvular disease, New growths, Dilatation and hypertrophy without valve lesion. *Blood Vessels*—Atheroma, Aneurisms, Ectases, Varicose veins. *Liver*—Abscess, Cirrhotic changes, Venous congestion, Amyloid, Syphilis, New growths. W. Goldie, Toronto.

FINAL EXAMINATIONS, COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

THE following have passed the final examination of the College of Physicians and Surgeons of Ontario: C. C. Armstrong, Kingston; M. B. Alexander, London; G. W. Alexander, Carleton Place; E. C. Ashton, Brantford; J. A. Bauer, Hamilton; E. Baker, Springfield; R. S. Broad, Wellington; C. L. Begg, Orillia; W. Bremner, Minesing; M. D. Baker, Simcoe; W. H. Bennett, Tilsonburg; J. A. Baker, Byron; W. B. Crowe, Trenton; E. G. Cooper, Lanark; R. Crosby, Campbellford; W. N. Connell, Ventnor; F. Cahoon, Picton; J. W. Crane, St. Thomas; J. E. Charlesworth, Hespeler; Colin Campbell, Toronto; J. Colville, Leskard; Jean Cruickshank, Weston; W. Chapel, St. Mary's; M. M. Crawford, Toronto; M. B. Dean, Brighton; H. H. Elliott, Frankville; W. S. Fadden, Denbigh; W. T. Frizell, Kemble; W. D. Ferris, Horning's Mills; C. C. Fissette, Brantford; E. L. Garner, St. Catharines; A. W. Hothan, Staffa; R. Hanley, Kingston; J. G. Hossack, Walsingham; J. S. Hogg, Seaford; R. Howey, Owen Sound; W. Henderson, Sarnia; H. G. Kemp, Brighton; C. B. Keenan, Ottawa; C. A. Lang, Granton; J. S. Labelle, Windsor; A. Laidlaw, Wilton; T. H. Lawrence, Sheridan; A. S. Lovett, Ayr; J. C. Lindsay, Clinton; J. E. Lundy, Pres-

ton; G. S. Munroe, Glanworth; R. D. Menzies, Lanark; C. A. Morrison, Kingston; J. P. Mitchell, Toronto; F. Moore, Clarksburg; J. W. Messecar, Waterford; J. McGuire, Gananogue; C. W. McLeay, Watford; R. G. McDonald, Sarnia; T. B. McDonald, Ripley; J. R. Nixon, Ashgrove; E. B. Oliver, Ingersoll; J. W. Orme, London; T. D. Orme, London; C. E. O'Connor, Kingston; W. H. Piersol, Toronto; F. Porter, Toronto; C. A. Page, Toronto; S. Paulin, Chesley; G. A. Russell, Seaforth; J. A. Roberts, Jarvis; G. A. Schmidt, Stratford; W. Stephens, Trafalgar; H. W. Spence, Toronto; A. D. Stewart, Toronto; W. Taylor, Dunnville; F. D. Turnbull, Milverton; J. F. Ten Eyck, Grimsby; W. J. Tilman, London; A. R. B. Williamson, Kingston; E. C. Watson, Kingston; J. D. Webster, Toronto; W. H. Woods, Watford.

THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

THE American Electro-Therapeutic Association will hold its ninth annual meeting at Washington, D.C., September 19, 20 and 21, 1900. The President, Dr. F. B. Bishop, appointed the following Committee of Arrangements:

Drs. D. Percy Hickling, Chairman; Jos. Taber Johnson, G. Lloyd Magruder, Z. T. Sowers, Robert Reyburn, G. Betton Massey, Chas. R. Luce, Elmer Sothoron, Llewellyn Eliot, Clifton Mayfield.

Willard's Hotel has been chosen for the headquarters, and special rates have been made for all interested in this meeting.

Many able papers have been promised, and a very successful scientific meeting is assured. There will be a large and varied exhibition of electro-therapeutic apparatus in Willard's Hall during the meeting of the Association. Willard's Hall is well adapted for this purpose, as it not only adjoins the headquarters, but communicates with it by a corridor; there is also a large entrance directly from the street. The Committee also promises a very pleasant social programme, including a reception by the President of the United States, an excursion to Mt. Vernon, Arlington and Alexandria, a buffet lunch to be served at Alexandria, an evening visit to the Congressional Library to be viewed under electrical illumination. Provisions have also been made to visit the War, State and Navy Department, the United States Treasury and other public buildings.

It is earnestly hoped that every fellow, active, honorary and associate, will be present at this meeting as we want to make it rank among the notable meetings of this Association.

WE are indebted to Mr. Pritchard, of the *Toronto World*, for the use of the cut of the late Dr. J. E. Graham appearing in this issue.

REPORT OF DEATHS FROM ALL CAUSES AND FROM CONTAGIOUS DISEASES IN ONTARIO FOR THE MONTHS OF APRIL AND MAY, 1899.

PREPARED BY P. H. BRYCE, M.A., M.D., DEPUTY REGISTRAR-GENERAL.

APRIL, 1899.

Total Population Reporting.	Total Municipalities Reporting.	Total Deaths Reported.	Rate per 1,000 from all causes.	Scarletina.	Diphtheria.	Malaria.	Measles.	Rate per 1,000 per Annum.	Whooping Cough.	Rate per 1,000 per Annum.	Typhoid.	Rate per 1,000 per Annum.	Tuberculosis.	Rate per 1,000 per Annum.
2,285,286 99%	736 95%	2,073	11	28	33	0.1	4	0.02	7	0.03	15	0.03	257	1.3

MAY, 1899.

2,218,203 97%	720 92%	1,707	10	17	18	0.09	3	0.01	7	0.03	18	0.09	230	1.2
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Population of Province 2,283,182
Registration Divisions of Province..... 777

The Canadian Journal of Medicine and Surgery

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Orthopedic Surgery—B. E. MCKENZIE, B.A., M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Surgeon to the Out-Patient Department, Toronto General Hospital; Assistant Professor of Clinical Surgery, Ontario Medical College for Women; Member of the American Orthopedic Association; and H. P. H. GALLOWAY, M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Orthopedic Surgeon, Toronto Western Hospital; Member of the American Orthopedic Association.

Oral Surgery—E. H. ADAMS, M.D., D.D.S., Toronto.

Surgical Pathology—T. H. MANLEY, M.D., New York, Visiting Surgeon to Harlem Hospital, Professor of Surgery, New York School of Clinical Medicine, New York, etc., etc.

Medicine—J. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon, Toronto General Hospital; and W. J. WILSON, M.D., Toronto, Physician Toronto Western Hospital.

Clinical Medicine—ALEXANDER MCPHEDRAN, M.D., Professor of Medicine and Clinical Medicine Toronto University; Physician Toronto General Hospital, St. Michael's Hospital, and Victoria Hospital for Sick Children.

Gynaecology and Obstetrics—GEO. T. MCKEOUGH, M.D., M.B. C.S. Eng., Chatham, Ont.; and J. H. LOWE, M.D., Toronto.

Medical Jurisprudence and Toxicology—N. A. POWELL, M.D., Toronto, and W. A. YOUNG, M.D., L.R.C.P. Lond., Toronto.

Mental Diseases—EZRA H. STAFFORD, M.D., Toronto, Resident Physician Toronto Asylum for the Insane.

Public Health and Hygiene—J. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon Toronto General Hospital; and E. H. ADAMS, M.D., Toronto.

Pharmacology and Therapeutics—A. J. HARRINGTON, M.D., M.R.C.S. Eng., Toronto.

Physiology—A. B. EABIE, M.D., Toronto, Professor of Physiology Woman's Medical College, Toronto.

Pediatrics—AUGUSTA STOWE GULLEN, M.D., Toronto, Professor of Diseases of Children Woman's Medical College, Toronto.

Pathology—W. H. PEPLER, M.D., C.M., Trinity University; Pathologist Hospital for Sick Children, Toronto; Demonstrator of Pathology Trinity Medical College; Physician to Outdoor Department Toronto General Hospital; Surgeon Canadian Pacific R.R., Toronto; and J. J. MACKENZIE, B.A., M.B., Bacteriologist to Ontario Provincial Board of Health.

Laryngology and Rhinology—J. D. THORBURN, M.D., Toronto, Laryngologist and Rhinologist Toronto General Hospital.

Ophthalmology and Otolaryngology—J. M. MACCALLUM, M.D., Toronto, Assistant Physician Toronto General Hospital; Oculist and Aurist Victoria Hospital for Sick Children, Toronto.

Address all Communications, Correspondence, Books, Matter Regarding Advertising, and make all Cheques, Drafts and Post-office Orders payable to "The Canadian Journal of Medicine and Surgery," 145 College St., Toronto, Canada.

Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited.

Advertisements, to insure insertion in the issue of any month, should be sent not later than the fifteenth of the preceding month.

VOL. VI.

TORONTO, AUGUST, 1899.

NO. 2.

Editorials.

DOES CANADA PRODUCE FERMENTED DRINKS?

IN discussing the questions of temperance and total abstinence before the Seventh International Congress against the abuse of alcoholic drinks, at Paris, April 4th, 1899, Mr. Bayet said that in the northern departments of France hop fields and apple orchards covered large sections of the country, and in the central and southern sections vineyards formed the principal source of wealth;

so that, in his opinion, it would be dangerous to abolish the use of beer, cider and wine, and that, in the true interests of the struggle against alcohol, it would be unwise to push matters with an extreme degree of rigor. In other words, the French agriculturist could not afford to impoverish himself in order to put down alcohol. Commenting on this view *Le Progrès Médical*, of Paris, says: "We think Mr. Bayet speaks the language of good sense and reason. We will not deny that total abstinence is the true remedy for alcoholic patients in hospitals, that in countries such as England, Sweden, Norway and Canada it is easy to preach abstinence, because these countries produce scarcely any fermented drinks. But one must be carried away by a too ardent conviction or completely ignore the state of mind of the French peasant, who, for ages, has actually worshipped his vines, to pretend that a campaign in favor of total abstinence can have the slightest chance of success among us."

We shall not undertake to discuss the argument drawn from interested motives or the influence of ownership of hop fields, barley fields, orchards and vineyards in inducing country people to vote against Prohibition. We simply wish to show that, in the first place, it is incorrect for our French contemporary to say that Canada produces scarcely any fermented drinks; and secondly, that, if there is a smaller production of some of these fermented drinks than the natural fertility of the soil and a favorable climate admit of, that circumstance is explained by the inevitable laws of demand and supply.

In a report published by the Deputy Minister of Agriculture, Ontario, we learn that in 1898 the Ontario vineyards covered 10,118 acres. It is probable that about half this acreage is devoted to the cultivation of grapes used in the making of wine. A gentleman, who is the president of a wine and vineyard company, writes us as follows: "We are not aware of any exact figures of the quantity of wine made and consumed annually. Our own idea is that there are about 5,000 acres of vineyards in Canada, of which about one-tenth are located on Pelee Island. The annual product would, we think, be about three-quarters of a million gallons. This is practically all produced in Ontario. The wine-producing section might be described by running a line from the head of Lake Ontario to the foot of Lake St. Clair; south of this is the wine-producing section of Canada, and the Catawba, Virginia-seedling and Isabella grapes ripen there, an impossibility anywhere else in Canada."

As our readers know, the yield of apples in Ontario is very large, amounting in 1896 to 55,895,775 bushels, yet, as indicative of the popular distaste for cider, a prominent manufacturer of Ontario sends us the following: "There is no demand for cider, and I do not sell much in any one place, but sell a little in every province in the Dominion."

The statistics of the Canadian Inland Revenue show that for the year ended 30th June, 1898, the total quantity of malt used for brewing amounted to 52,412,502 lbs., and the liquor manufactured, to 19,871,733 gallons. In 1898 all the warehouse malt in Canada, excepting 4.13 per cent., was the product of Canadian fields. Hops are confined to a few sections of Canada, and are generally for local use. In 1898 there were 1,423 acres under hops in Ontario. From the statistics we give of the wine and cider industries our readers will see that these fermented drinks are not produced in large quantities in Canada. That omission, however, does not depend on the infertility of her soil, but is due to the custom of the people, who drink tea or water at their meals instead of wine or cider.

The malt statistics show a considerable output of fermented drinks of that class, and it is quite certain that if the demand for malt liquors were to increase, even enormously, the supply of the native product would quite equal the demand.

Our readers will therefore agree with us, that Canada does produce fermented drinks and large quantities of malt liquors in particular. The supply of all fermented drinks is, however, regulated by the demand, and the demand in Canada is checked by temperance sentiment and the dietetic customs of the people.

J. J. C.

THE STANDARDIZATION OF DRUG EXTRACTS.

THERE can be no doubt that the standardization of important drug extracts is a matter of the first importance to the pharmacist and the physician. An honest pharmacist wishes to furnish what is actually wanted, and a physician, who knows the physiological and clinical effects of a certain preparation, wishes to produce well-defined therapeutic effects by exhibiting it in a given case.

Much has been said of the varying quantities of strychnine in different samples of *nux vomica*, some containing as much as 3.25, and others as little as 2.03 per cent. of the alkaloid. Naturally,

liquid extracts and tinctures of *nux vomica* made from such materials will show varying proportions of strychnine. According to the British Pharmacopœia, the liquid extract of *nux vomica* contains $1\frac{1}{2}$ grains of strychnine in 110 minims (1.5 grammes in 100 cubic centimetres), and in making it the proportion of strychnine in the strong liquid extract is determined by an analytical process. Tincture of *nux vomica*, which is made from the liquid extract of *nux vomica*, is also tested by the same assay process, and should yield not less than 0.24, nor more than 0.26 grammes of strychnine corresponding to about $\frac{1}{3}$ grain in 1 fluid drachm, or $\frac{1}{4}$ grain in 110 minims. If well made and weighed, such proportions can be depended on. Where several alkaloids exist in a drug, as in *cinchona*, each alkaloid should be obtained in a pure state, weighed, and its percentage in a given sample of the drug calculated. There are drugs, however, the strength of which cannot be accurately measured, unless a physiological test is applied. For instance, the strength of a sample of digitalin may be best shown by comparing it with the minimum killing dose of a standard sample of this drug administered to frogs, the tests being then of a quantitative nature. Similar means are used in testing samples of *strophanthin*. The processes by which these reactions are obtained are explained in a paper read by Dr. Houghton before the American Medical Association, October 22nd, 1898. The essayist showed that great variations could be detected in different samples of *strophanthin*, one of them being ninety times as strong as another, the others varying between these limits. He also found that the digitalins varied very greatly in strength, though much less than the *strophanthins*, and said: "The only way that such remedies can be taken with any degree of safety is to have them prepared from stock of known physiological strength."

Ergot is also a drug, the strength of which cannot be accurately determined by a chemical assay. Its oxytocic power may be best determined upon pregnant animals, and its hemostatic action by feeding the drug or extract of ergot to cocks, the result being that the capillaries of the comb and wattles of the fowl became black, and in extreme cases even gangrenous.

Cannabis indica is another drug, the samples of which, as purchased in the market, vary much in strength. It may be administered in the form of an extract to dogs, with the result that a reliable sample will, after the lapse of a normal interval of time, produce a staggering gait, loss of muscular control, reduction of

temperature, etc., followed by insensibility. Physiological tests can also be applied to squill, elaterium, convallaria majalis and to their active derivatives.

There can be no doubt that physiological methods of testing and measuring the strength of drugs, which do not admit of a satisfactory chemical assay, is very reassuring. The exhibition of digitalin to a patient is often viewed with dismay by a practitioner, and the knowledge that a special sample of this derivative has been tested, not merely *in vitro* but *in corpore vili* as well, will induce him to prescribe it, say, in pneumonia, with a reasonable expectation of obtaining a therapeutic effect, and without the fear of a possibly lethal result.

J. J. C.

PUERPERAL FEVER IN ONTARIO.

DURING 1897, in an urban population aggregating 436,996, there were 9,037 births, and 29 deaths from puerperal fever, a rate of mortality from this disease of 0.32 per 1,000 births. Happily, this disease did not cause any mortality in Brantford, Windsor, Chatham and St. Thomas, although, taking these cities in the order given, their birth ratios to 1,000 of population were 30.1, 21.6, 20.7, and 20.0. The highest ratios of mortality from puerperal fever, in proportion to births, were: Guelph, 0.77; Stratford, 0.74; Ottawa, 0.7; Belleville, 0.66; and their respective birth rates to 1,000 living persons were 23.1, 13.2, 27.1 and 14.3. The low birth rates of Stratford and Belleville may be due to insufficient reporting of births, and their true rates for 1897 ought, perhaps, to be put 10 per cent. higher than the quoted figures. If the reporting of births be incomplete, the records of deaths and the causes of death are full enough, and the fact remains that, in some cities of Ontario, the ratio of puerperal fever is relatively high and in others it is nil. Among the larger cities of the urban group used for this statistic, Hamilton makes a good showing with a percentage of .01; London comes next with a percentage of 0.18; Toronto makes a fair third with 0.26.

In the Province 185 deaths are recorded as being due to puerperal fever out of 47,323 births, *i.e.*, one death from puerperal fever to 255 births or, a mortality from this cause of something over one-third of one per cent.

It is generally admitted, nowadays, that puerperal fever is a preventable disease. Modern midwifery aims at conducting an

accouchement with the care devoted to a surgical operation, and can point to long lists of cases brought to a successful issue, even in old lying-in hospitals, where puerperal fever used to be a common cause of death. This vindication of antiseptics in lying-in hospitals should make every physician adopt them in midwifery cases.

As the greatest number of deaths from puerperal fever in 1897 occurred in parts of Ontario, where a large number of births took place without medical assistance, these untoward results of parturition cannot be fairly placed to the credit of the Ontario physician. For instance, in Algoma, where 52.53 per cent. of the births were unattended by physicians, 4 deaths from puerperal fever occurred, while in Brant, where 3.1 per cent. of births had no physician in attendance, there were no deaths from puerperal fever. Again, in Bruce, where no physician was present at 20.72 per cent. of the births, 7 deaths from puerperal fever occurred, while in Wentworth, where 2.68 per cent. of births occurred without the presence of a physician, there were two deaths from puerperal fever.

Then, again, according to population, the cities, in which most obstetric cases fall to the physicians, had less than their share of deaths from puerperal fever, because of the total deaths from this cause 15.67 per cent. occurred in cities, whilst the urban population is 19.13 per cent. of the total population of the Province.

The pure air of the country is, doubtless, a large factor in increasing systemic resistance to infection, and, on the contrary, the impure air of a crowded dwelling or an urban district produces a lessened power of resistance to disease. The statistics we have quoted show, however, that proper medical attendance, even if it is hampered with the often poor, unsanitary conditions of urban life, is safer for a woman in childbed, than pure country air encumbered with the assistance of a neighbor or midwife.

J. J. C.

THE MEDICAL COUNCIL AND LODGE PRACTICE.

THIS year again the question of lodge practice came up for discussion at the session of the Ontario Medical Council. This subject is one which the medical journalists of Canada have thrashed out in past years, and have as a unit proclaimed the decision that the undertaking of lodge practice by medical men is not ethical and is contrary to the best interests of the entire profession.

It may have seemed to the readers of the report of the proceed-

ings of the, 1899 session of the Medical Council that the subject of lodge practice was touched upon in an exceedingly desultory and useless fashion—just tickled with a feather to see it was still alive, and then, according to an honored custom, laid upon the table. It may also have seemed that there was a certain amount of trepidation shown by members of the Council who took part in the discussion in case anything were said which "might lead to trouble."

No matter how enthusiastic the medical men may be, and no matter how sincerely the members of the Medical Council may accord with the opinion of the majority of those whom they have the honor to represent, they cannot act ahead of law, and unfortunately the Medical Act, which rules their deliberations, does not at present cover this *bete-noir*, lodge practice. No clause of the Act can be so construed as to permit of a practitioner undertaking lodge work being legally ostracised or accused of "disgraceful" conduct. Herein is where the trouble lies. The Act does not cover "lodge practice," and, therefore, the Medical Council finds itself unable to act.

At this year's session of the Council it was deplored that lodge practice was still indulged in, and a resolution was carried that a circular be sent to lodges, and a communication to all registered practitioners in the Province, requesting the latter to state their position and views in the matter, and suggest a speedy means to do away with this evil.

It seems a crying shame that our Medical Council, whose actions govern us, is powerless to stop that which is by far the greatest evil we, as practitioners, have to put up with, something which is robbing medical men at the present day of hundreds, yes, hundreds of thousands of honestly earned dollars. This question is a far-reaching one, and of the greatest concern to all. At the International Congress on Medical Ethics, to be held in Paris in 1900, many questions allied to this one are "listed" to be discussed by one of the four sections into which the Congress is to be divided. We await with interest to learn in what light lodge practice is regarded by this assembly of the wiseacres of our profession who have scanned a broader horizon.

As far as the immediate present is concerned, *individual action* must be taken, each guilty physician deciding at once to abandon a practice which public opinion and true medical ethics have long declared servile and entirely unbecoming the dignity of a medical

gentleman. Too long have these "lodge doctors" been recognized by the profession, and a sorry addition they are to its ranks, as they stand holding out their cap monkey-like to the crowd, performing their best surgical tricks for the few Queen's heads contemptuously tossed to them by workingmen, who esteem their humbler work so highly that they would "strike" and starve rather than cheapen its value by accepting such a pittance. But the surgical trick has been performed, and the crowd say, "Easy to be ill nowadays, all attendance and medicine for a dollar a year." And the laughter—"the laughter comes after."

W. A. Y.

GRACE HOMEOPATHIC HOSPITAL NO MORE.

"WITH a view to enlarging the usefulness of Grace Hospital and removing the limitations hitherto existing as merely a homeopathic institution, the trustees have decided to make Grace a general hospital in the fullest sense; and, accordingly, in addition to the already existing homeopathic staff, have established another separate and independent staff, comprising a number of prominent medical men of the city.

"The new staff commence their work on Monday, July 17th, and from that date there will be open daily from 2 p.m. a free dispensary in all departments of medicine and surgery, for the needy poor.

"The private and semi-private wards are open to all registered practitioners of the city.

"The new and allopathic staff is made up of: Medical staff, Drs. Nattress, Stephenson, Pyne and Lynd; surgical staff, Drs. Holford Walker, Sylvester and J. H. Cotton; obstetrician, Dr. J. M. Cotton; outdoor staff, Drs. Clark, Harris, McPherson, Malloch, Coleman and McConnell; bacteriologist, Dr. Westman."

The above is an official announcement handed out by the Secretary of Grace Hospital about two weeks ago, from which it will be seen that that institution has now passed from under the wings of the homeopathic profession and has become a general hospital. "Grace," however, will differ from the other three general hospitals in Toronto in having a staff made up of both allopathic (*i.e.*, scientific) and homeopathic physicians, where they will work side by side, striving with one another as to which form

of medication shall accomplish most for the relief of suffering, and demonstrating to the public generally that "the wolf also shall dwell with the lamb, and the leopard lie down with the kid." The only thing, however, which is troubling us in this connection, is an awful fear that, owing to such close association between the individual members of the two different staffs, in the end a similar mix-up may be the result, as was the case when Dinah, the colored cook, determined to marry Sam Ling, the washee gentleman. On being remonstrated with by her mistress, Dinah replied: "I allows, Missus, dat is de wusst of it, de chillun will done suah be Jews."

W. A. Y.

EDITORIAL NOTES.

Formaldehyd Disinfection in Chicago.—From the *Monthly Bulletin*, May, 1899, published by the Department of Health, Chicago, we learn that formalin gives good results as a disinfectant in that city. For every 1,000 cubic feet of space in the room is suspended, by one edge, an ordinary bed-sheet (2 x 2½ yards), from a line stretched across the middle of the room. Properly sprinkled, this will carry, without dripping, 5 ounces of the 40 per cent. solution of formaldehyd, which is sufficient to disinfect 1,000 cubic feet of space. As many sheets as are necessary are used, hung at equal distances apart. The ordinary, rather coarse, cotton sheet should be used, in order to secure rapid evaporation. The sprinkling is done by means of a spray-producer, devised by Dr. Behm. The sprinkler is perforated by eight minute holes, one-fourth of an inch apart, and almost one millimeter in diameter. The container will hold 22 ounces of formalin, or sufficient for four sheets or 4,000 cubic feet. When all is in readiness in the room, the disinfecter ties a damp towel over his mouth and nose, and beginning with the sheet farthest from the door of exit, rapidly sprinkles each sheet on his way out, being careful to spray evenly and no space more than once. The evolution of the gas is so rapid that the air becomes irrespirable in about three minutes, so that quick action is necessary. It has also been found necessary to provide the operators with surgeons' rubber gloves, to protect the hands and wrists from the spray. The room is left closed not less than five hours, after which it is opened up as freely as possible to light and air; the family is instructed to have all woodwork well scrubbed with soap and hot water, or with

the mercuric-chloride solution, and the furniture and other objects thoroughly wiped off with cloths dampened with one part of formalin to twenty parts of water.

Binoxide of Sodium to Purify Air.—Last February, Drs. Laborde and Joubert announced to the Paris Academy of Medicine that they had discovered a substance, the use of which enabled them to renew air which had been vitiated by respiration. They did not, however, publish the nature of their discovery. Recently two other discoverers, Drs. Desgrez and Balthazard have procured a means of renovating impure air by the use of binoxide of sodium, Na_2O_2 . Under the influence of water or moist carbon dioxide, the binoxide of sodium breaks up into free oxygen and sodium carbonate of sodium. All the conditions favorable to the regeneration of vitiated air are therefore realized; expired air being characterized by a lack of oxygen and an excess of watery vapor and carbon dioxide. The two last factors are precisely the active agents, which bring about the disengagement of oxygen. Moreover, the binoxide of sodium and sodium appear to partially destroy certain injurious products of respiration, the nature of which is still very obscure. One gramme of binoxide of sodium can furnish 0.20 of oxygen. Two guinea-pigs were placed under bell-jars of the same size, one of which contained a certain quantity of binoxide of sodium. The witness animal died asphyxiated in four hours, while the other guinea-pig, which was supplied with the binoxide, survived after a ten-hours' trial. This discovery may be utilized in submarine work, principally in the submersible ships, which are so much spoken of nowadays. In order to maintain the balance of the confined air, and the normal air pressure, it would be absolutely necessary to provide a second service of oxygen—say, for instance, a few tubes of liquid oxygen; for the binoxide of sodium absorbs proportionately more carbon oxide than it exhales oxygen and, in one case, the experimenters observed, that the pressure fell a fifth of one atmosphere as a result of this difference in oxygen.

Medical Inspection of Schools.—Why do not some of the junior physicians of Toronto agitate in favor of the systematic medical inspection of the city schools? It will be a long time before the Public School Board and the City Board of Health unite in imploring them to assist in restricting the spread of contagious diseases in city schools by daily medical inspection, and yet every one who gives the matter a moment's thought, will say that a

physician is the right man to recognize the first stage of scarlatina, measles or diphtheria in a child. The prompt separation of such a child from his school companions is the most effective method of lessening the danger to them. Then, again, from the standpoint of medical practice, a physician might as well spend some time in studying the primary stages of contagious diseases in school children as in treating the final stages in children at their own homes; and, what is more, his practical grasp of the work would increase with the systematic daily application of his book knowledge. If he cannot practise in an "emergency hospital," at least he may help the public in important emergencies. He would also be in a position to apply frequent tests to such systems of heating and ventilation as are used in the different schools, and could thus form practical opinions as to their real value.

What the Midwives Think of It.—We are indebted to an article in the *British Medical Journal*, June 17th, 1899, for a peep into the "Transactions of the Midwives' Society," instituted 1897. One midwife, in a paper with the striking title, "Malthusianism, or Tired Ovaries," asserts that "one rarely meets a healthy virgin of forty; and says of the married woman, who resolves to have no more than one or two children, that she falls into a state of health in which 'she complains of nothing in particular, but everything in general, with nervous symptoms predominating.' The most careful examiner will find at the bottom of the whole trouble a pair of tired ovaries and a hungry womb! Now, instead of letting any one make a 'big to do' over a small, granulated spot on the cervix, or a slight leucorrhœal discharge, or some minor trouble, and tell her she must have 'local treatment' every third or fourth day, the midwife should be a true woman and tell the woman the truth—that if she will go through pregnancy and lactation she will be cured" (page 18). For a woman nursing a baby and not menstruating, to advise weaning because she is "delicate," is fallacy, for she gains nothing by substituting ovulation for lactation" (page 19).

The Treatment of Ophthalmia Neonatorum and the Provincial Board of Health.—In reference to the discussion on ophthalmia neonatorum, which occurred after the reading of Dr. Burnham's paper, at the annual meeting of the Ontario Medical Association, June 13th and 14th, 1899, Drs. Ryerson and Reeve both advocated dropping one or two drops of a 1 per cent. solution

of nitrate of silver into an infant's eyes shortly after birth. Dr. Reeve also stated that the Provincial Board of Health should give instructions to doctors and maternities, that Credé's, or some other method, be used regularly. This matter was brought before the Provincial Board of Health May 6th, 1897, through a letter from the Canadian Medical Association, asking that ophthalmia neonatorum be placed on the list of communicable diseases, requiring notification. Some discussion followed, and, finally, on motion of Drs. Cassidy and Kitchen, it was resolved as follows: "That the Provincial Board of Health recognizes the communicable nature and also the unfortunate results of ophthalmia neonatorum, and urges upon obstetricians the adoption of proper methods for its prevention; but it does not approve of the opinion that this disease should be added to the list of communicable diseases, requiring notification under the Public Health Act."

Attention! A Doctor Wanted. Reply Quick.—The following is a letter recently received from an influential gentleman in the West. It ought to be a magnificent chance for a young man, as his practice will be ensured. Answers, enclosing stamped envelope, to be addressed to Box 47, CANADIAN JOURNAL OF MEDICINE AND SURGERY, Toronto.—[ED.]

DEAR DOCTOR,—There is an excellent opening here for a medical man. Population 1,500 to 2,000; large railway shops; headquarters for prospectors, mining men, etc. Our doctor lately moved from here to Vancouver, where he thinks bigger money can be had; another poor fellow is nearly paralyzed with cocaine, so *just now* a new man, a *Methodist preferred*, would take a good big share of the work, there being only two other medical men in town. If you know of a *good* young fellow, put us in correspondence.

Yours truly, etc.

Poisoning by Carbolic Acid.—In poisoning by carbolic acid, the drug having been employed by mistake as a vaginal douche, sulphate of sodium, 1 drachm in 16 ounces of water, was successfully used as a local application. This drug might also be tried when the poison has been introduced per os or per rectum. An innocuous sulpho-carbolate of sodium probably results from the combination of carbolic acid with sulphate of sodium. Alcohol, in the form of whiskey, is a good vehicle in which to give an emetic of sulphate of zinc to a person who has swallowed carbolic acid. Dr.

Seneca D. Powell recently reported to the Medical Society of the County of New York three cases of carbolic acid poisoning in which alcohol had been used internally with success.

PERSONALS.

THE Board of Trustees of the Toronto General Hospital held a meeting on the afternoon of July 3rd in the Emergency Hospital to select the men who will compose the house staff for the coming



RESIDENT STAFF, TORONTO GENERAL HOSPITAL, 1899-1900.

STANDING—F. H. Bethune, M.D., C.M.; Norman Farewell, M.D., C.M.; Harold Anderson, B.A., M.B.; Chas. M. Stewart, M.D., C.M.; Thos. Bradley, M.D., C.M.; Geo. A. Sutherland, M.B.

SITTING—John McCrae, B.A., M.B.; W. E. Graham, M.D., C.M.; Chas. O'Rielly, M.D., C.M., Superintendent; D. McGillivray, M.B.; W. C. White, M.B.

year. All of the medical staff were reappointed. The new house staff will be as follows: From Toronto School of Medicine, Dr. H. W. Spence, Toronto; Dr. A. D. Stewart, Toronto; Dr. M. B. Dean, Brighton; Dr. A. A. Shepard, Toronto; Dr. F. Turnbull, Milverton, and Dr. J. A. Roberts as alternative. From Trinity Medical College: Dr. Colin Campbell, Toronto; Dr. G. W. Alexander, Carleton Place; Dr. C. A. Page, Toronto; Dr. G. A. Schmidt, Stratford;

Dr. E. Baker, Simcoe, and Dr. R. S. Broad, alternative. Mr. Walter S. Lee presided at the meeting of the board.

DR. W. B. GEIKIE, of Holyrood Villa, Maitland Street, has decided to relinquish active practice, and will, after this date, only take consultation work. We know that, with the Doctor's extensive experience, not only as a practitioner, but a teacher of medicine, he will find that his patients will be pleased indeed to be able still to retain his services when required as a consultant.

DRS. JAS. MEEK and Marcus Kenyon have been appointed professors of Ophthalmology and Otology at the New York School of Clinical Medicine, 328 West 42nd Street, New York. The advertisement of this school will be found on page cxi. of this issue of the JOURNAL.

WE are very much pleased to take this opportunity of extending congratulations to Drs. A. H. Garratt, W. H. Harris and Anderson on the result of their recent *différance* with one Davidson, whose residence is on York Street, Toronto.

DR. CHAS. WILSON, of Montreal, and Dr. H. P. H. Galloway, of Toronto, were recently elected active members of the American Orthopedic Association, the next meeting of this Association being held in Washington, D.C., in May of next year.

DRS. E. BAKER and E. Shepard of the new house staff of the General Hospital have been appointed to the Emergency branch of that institution.

DR. MALLOCH, of College Street, has been appointed one of the Visiting Physicians to the Home for Incurables, Dunn Avenue, Parkdale.

DR. ERNEST HALL, of Victoria, B.C., has decided to remove to Toronto, and will after this reside at 602 Spadina Avenue.

DR. AMBROSE T. STANTON has been appointed resident house surgeon of the Hospital for Sick Children, College Street.

DR. W. A. YOUNG has been placed upon the consulting staff of the Toronto Home for Incurables.

BIRTH.

GORDON—July 13th, 646 Spadina Avenue, the wife of Dr. D. Gilbert Gordon, of a son.

Medical Miscellany.

A Hospital Automobile.—An automobile ambulance has been presented to a Chicago hospital. The vehicle weighs 1,600 pounds, and is capable of a speed of sixteen miles per hour. This is probably the first electric ambulance ever constructed.

The Porous Plaster and Liver Pill Trust is one of the latest combinations to be established. The enormous amounts involved in the transaction is some slight indication of the number of people who put their trust in such preparations.—*Medical Record.*

Photographing the Stomach.—Drs. Lang and Meltzing, of Berlin, have presented an apparatus which they have invented for photographing the interior of the stomach. The tube, the end of which contains a microscopic camera and an electric light, is inserted into the stomach. The negative is about the size of a cherrystone, but it can be enlarged. When the stomach is emptied and filled with air the photograph is made.

An Italian Congress of Hygiene will be held at Como, Italy, during the present year. Professor Bacceli, minister of public instruction, has been named honorary president of the organizing committee, other members of which are Professors Bizzozero and Golgi. An exhibition of hygienic appliances will be held in connection with the congress. The meeting will be made the occasion of a commemoration of Volta.—*Medical Record.*

The Uses of Apomorphine.—Dr. G. B. Malone (*Memphis Medical Monthly*, January) reports the efficient use of apomorphine in spasmodic asthma, the dose being one-twentieth of a grain *per os*; in hysterical convulsions, one-tenth of a grain hypodermically; in the convulsions of childhood, one-twentieth of a grain being given to a child two years and a half old; and finally, in puerperal eclampsia, using an initial dose of one-tenth of a grain.

Removal of Double Fish-hook Lodged in Throat.—A drawing and description of the extraction of a double fish-hook from a boy's throat by Sir R. Christisen in 1819, was recently exhibited at a meeting of the London Society of Laryngology. A ball of ivory was hollowed out on one side to fit over the prongs of the hook. The ball was then pushed down over the hook, which released

the tips, when the whole was drawn out together by the fish-line still fastened to the hook.—*Rev. de Laryng.*, February 18.

The Practice of Medicine in Cuba.—Under the Spanish rule, in order to practise legally in Cuba, it was necessary to hold a diploma of the University of Havana or of some university in Spain, viséd by the proper authority of the district. Those holding foreign diplomas were obliged to pass an examination or to obtain a temporary license. Since the expulsion of the Spaniards, the *Archivos de la Policlínica* complains, many foreigners have come to the island and begun practice without let or hindrance. Our contemporary naturally holds that such an abuse should be stopped by the authorities now governing the country.—*Medical Record*.

Christian Science Moneymaking Methods.—The *Christian Science Weekly* for January 19th contains the following impudent demonstration of its character as a barefaced moneymaking scheme:

“Christian Science Souvenir Spoons.”

“On each of these most beautiful spoons is a motto in bas-relief, that every person on earth needs to hold in thought. Mother requests that Christian Scientists shall not ask to be informed what this motto is, but each Scientist shall purchase at least one spoon, and those who can afford it, one dozen spoons, that their families may read this motto at every meal, and their guests be made partakers of its simple truth.

“MARY BAKER G. EDDY.

“The above-named spoons are sold by the Christian Science Souvenir Company, Concord, New Hampshire, and will soon be on sale also at the Christian Science reading rooms throughout the country.”

Old Age and Exercise.—Exercise is essential to the preservation of health; inactivity is a potent cause of wasting and degeneration. The vigor and equality of the circulation, the functions of the skin, and the aération of the blood are all prompted by muscular activity which thus keeps up a proper balance and relation between the important organs of the body. In youth the vigor of the system is often so great that if one organ be sluggish, another part will make amends for the deficiency by acting vicariously, and without any consequent damage to itself. In old age the tasks cannot be thus shifted from one organ to another; the work allotted to each sufficiently taxes its strength, and

vicarious action cannot be performed without injury. Hence the importance of maintaining, as far as possible, the equable action of all the bodily organs, so that the share of vital process assigned to each shall be properly accomplished. For this reason exercise is an important part of the conduct of life in old age, but discretion is absolutely necessary. An old man should discover by experience how much exercise he can take without exhausting his powers, and should be careful never to exceed the limit. Old persons are apt to forget that their staying powers are much less than they once were, and that while a walk of two or three miles may prove easy and pleasurable, the addition of a return journey of similar length will seriously overtax the strength.—*Dietetic and Hygienic Gazette.*

The Diagnosis of Functional Heart Murmurs.—Dr Maude E. Abbott (*Montreal Medical Journal*, January) concludes a paper on this subject as follows: "The cases studied illustrate especially the following points: 1. In cases of anemia, pulmonary accentuation is often associated with a pure accidental murmur. 2. Functional murmurs frequently occur when there is neither anemia nor fever. They are then often associated with some other condition suggesting intoxication. 3. Diastolic murmurs have been noted which do not appear to have an organic origin. 4. Although accidental murmurs are generally heard at the base and those of relative mitral insufficiency at the apex, accidental murmurs are probably sometimes heard at the apex (as in moderate anemias, where the murmur may occur at the apex unaccompanied by pulmonary accentuation or cardiac enlargement and disappear after a short time; or in high fevers, where a murmur at the apex is replaced after a few days by one of the pulmonary cartilage of the same character). On the other hand, murmurs produced at the mitral valve are occasionally, though rarely, heard best at the pulmonary cartilage. Two conditions which it may be quite impossible to distinguish from each other by physical signs are: A functional murmur at the apex with signs of moderate dilatation (relative mitral insufficiency), and an organic mitral murmur with signs of compensatory change. A decision can often only be reached by considering the patient's general condition and the *persistence* of the murmur. This last is the clinching point, and is the final criterion to which uncertain cases must be brought. In plain terms, *we must wait to diagnose the murmur until it is no longer there to diagnose.*"

Obituary.

THE LATE DR. J. E. GRAHAM.

No death has occurred amongst the members of our profession in Canada during recent years which has caused such great and general regret as that of Dr. J. E. Graham, of Toronto, which occurred on the 7th of last month at Gravenhurst Sanitarium. Dr. Graham was indeed a star in the profession and had reached a position to which few ever attain. It may be said that practically



THE LATE DR. J. E. GRAHAM.

everything lay at his feet, but the grim monster interfered and cut short an exceptionally bright career.

Dr. Graham had been in failing health for some months, following an attack of illness which occurred last February. After spending some weeks in the Southern States he returned home recently, and on May 25th went to Gravenhurst to recuperate, but he did not rally as was expected, and passed away on the 7th

ultimo. He was the son of Mr. Joseph Graham, of Brampton, who died last March at the ripe age of ninety two. Dr. Graham was born in Peel County in 1847, and received his early education at Weston Grammar School and Upper Canada College. In 1869 he graduated in medicine at Toronto University, being gold and silver medallist of that year. The following year he was resident physician of Brooklyn City Hospital, when he was appointed surgeon without rank in the Prussian army, a position which he held through the Franco-Prussian war.

After pursuing a post-graduate course at Vienna, Austria, also in London, England, where he obtained the diploma of L.R.C.P., he returned to Toronto to commence practice in 1872. He was married on July 15th, 1873, to Miss Mary Jane Aikins, second daughter of Hon. J. C. Aikins. In August, 1887, he was appointed Professor of Clinical Medicine and Medical Pathology, and lecturer on dermatology in his *Alma Mater*, and in 1892 succeeded Dr. Wright as Professor of Medicine. Dr. Graham was President of the Dominion Medical Association in 1887, of the American Dermatological Association in 1889, and was one of the original members of the Association of American Physicians. In 1893 he was made a member of the Royal College of Physicians, London.

After practising on Yonge Street for his first five years of work in Toronto, Dr. Graham removed to the corner of Church and Gerrard streets, where he remained until three years ago, when he removed to his late residence, 134 Bloor Street East. He was singularly devoted to his profession and took no part in politics or municipal affairs. He was a Methodist in religion, and a prominent member of the Metropolitan Church. For a number of years he was in addition a trustee on the board of Elm Street Methodist Church.

Dr. Graham was the first physician in Ontario who gave up general practice and devoted himself to pure medicine. He was also the first in Ontario who became purely a consulting physician. For some years before his death he was generally recognized throughout Canada and the United States as the most prominent physician in this country. He was very active in his medical associations, both in Canada and the United States, and was a past President of nearly all the societies he ever belonged to, including the Canadian Medical, the American Dermatological, the Toronto Medical, the Toronto Pathological, etc. He was at the time of his death President of the Ontario Medical Association.

Dr. Graham was a frequent contributor to medical literature, one of his most recent being a very able article on "Cholelithiasis," appearing in Vol. II. of Sajou's Annual.

In matters pertaining to medical education he always took a deep interest and exercised great influence. His aim was ever to raise the standard. He took special interest in the practical aspects of medical education. He was himself an admirable clinical teacher, and did a great deal towards placing clinical instruction in the important position it now occupies in this country.

His position in the University of Toronto was in many respects remarkable. He was for many years a member of the Senate, first as representative of the Toronto School of Medicine, and afterwards as representative of the graduates in medicine. His fellow-graduates showed their appreciation of his worth by placing him at the head of the poll at each of the two elections for the Senate in which he was a candidate. Apart from his popularity with the graduates he was beyond doubt the most influential medical member of the Senate.

Dr. Graham leaves a widow and four children. Joseph, the son, is a medical student, and there are three young daughters, Edith, Florence and Lucille.

The funeral took place from his residence on Bloor Street East on Monday, July 10th, to Mount Pleasant Cemetery. The cortege was one of the largest ever seen in Toronto, the attendance of medical men from both the city as well as outside points being exceptionally large. The floral display was particularly fine, showing the esteem in which the late doctor was held—"Till the day breaks and the shadows flee away."

THE remains of Dr. R. B. Potts, who died in Hamilton on Tuesday, July 11, were buried from his father's residence, 259 Palmerston Ave., Toronto, on July 14. Dr. Potts, who was a graduate of Toronto University, was born in Oakville, and before going to college taught school. He practised medicine in Essex for a time, and married a daughter of Dr. Pacaud, of Essex. He was a member of Acacia Lodge, A. F. & A. M., Orange Lodge, No. 779, Court Oronhyatekha, I.O.F., Hamilton Lodge, A.O.U.W., Council No. 1, C.O.O.F., Court Maple Leaf, A.O.F., Hearts of Oak, S.O.E., and Regina Tent, K.O.T.M.

The Physician's Library.

BOOK REVIEWS.

Twentieth Century Practice. An international Encyclopedia of modern medical science, by leading authorities of Europe and America. Edited by THOS. L. STEDMAN, M.D., New York City. In twenty volumes. Vols. I, II, III, and IV. New York: Wm. Wood & Co. 1895.

There are quite a number of medical men who are somewhat opposed to what are termed systems, whether they be systems of medicine, or systems of surgery, or any other principal branches of medicine as a whole. These opponents, if they may be so called, prefer, they say, to have a one or two volumed work, where they can readily get a short, concise chapter on any particular subject, which does not take long to glance through to secure the needed information. There are others who prefer to purchase a complete, often many-volumed, work, one which contains as nearly as possible everything which is up-to-date in that branch, and thus dispense with the necessity of further expenditure for some time to come. We admit that possibly both such classes have points in their favor. During the last quarter of a century, medicine has advanced in a wondrous manner in every branch, so that a work of but a few years ago would nowadays be all but obsolete, more especially in reference to treatment. It is during the past ten years that it might be said that "a new science has arisen, and a new theory of infectious diseases been established," necessitating almost the rewriting of medicine as a whole. In the "Twentieth Century Practice" a large and most influential body of writers have been called into service, and it is the result of their labor which will appear in the twenty volumes of this complete and wonderfully compiled work. Among the contributors to this system are Drs. Bulkley, Dana and Shrady, of New York; Professor James, of London; and von Noorden, of Frankfort-on-the-Main. The contributors to Volume I. are: Howard A. Kelly, of Baltimore; G. Frank Lydston, of Chicago; E. Harry Fenwick, F.R.C.S., of London; Reginald Harrison, F.R.C.S., of London; and Francis Delafield, of New York. Volume I. is devoted to diseases of the uropoietic system, and deals with diseases of the kidneys, ureters, bladder, prostate, male urethra, urine, female bladder and urethra. Under diseases of the kidneys, study is given to acute and chronic congestion, and acute and chronic degeneration of the kidneys, acute exudative, acute and chronic (diffuse) nephritis with exudation, puerperal eclampsia, suppurative and tubercular nephritis. The plates on pages 71 to 80, and pages 87, 88, 89, 90, 91, 92, 93 and 94 of Volume I., illustrating chronic nephritis with exudation, are very fine, and much more clear and distinct than many we have seen. A chapter under surgical diseases of the kidneys, entitled "Renal Tuberculosis," is most interesting, Reginald Harrison laying stress upon the fact that tubercular disease of the genito-urinary organs has a great deal in common with what takes place when other parts of the body are attacked, being distinctly hereditary, the disease corresponding in its occurrence with the period of life when the development and use of the sexual organs are commencing to be active.

A chapter entitled "Stone in the Bladder," is written in an exceedingly lucid manner and proves most readable. The writer, Reginald Harrison, of London, goes on to show that there is considerable risk in using the sound on an adult on whom that instrument had never been used before, more so than

that attending the removal of a moderate-sized stone by lithotrity. He prefers a solid steel sound, nickel-plated, not exceeding a No. 8 English bougie, and with a good curve. The author claims that sounds are too short, as a rule, and adds that when the prostate is large, sounds should not be less than fourteen inches in length. He states he has no partiality for hollow sounds, being afraid of admitting air into an organ, and thus aid the process of decomposition.

Dr. Frank Lydston, of Chicago, in his article on "Hypertrophy of the Prostate," shows that though in certain cases depression of the floor of the bladder and alteration in the walls of that viscus precede perceptible pathological change in the prostate, this condition may in no way be causative of the prostatic disease. General atheroma, with a resulting alteration of the structure and power of the bladder, may become associated with hypertrophy of the prostate, the view held by the modern French school. It is because the primary condition which precedes true hypertrophy is very exceptionally brought to the notice of the surgeon that so much obscurity as to its origin exists. Prolonged hyperemia incidental to various causes of irritation undoubtedly is the primary cause of the stage of hyperplasia before symptoms of any account are complained of. Lydston also treats of diseases of the male urethra in Volume I. In acute urethritis he claims that alkaline diluents should always be given throughout the course of the disease, either alone or in combination with other drugs. He says that the fluid extract of pichi (*fabiana imbricata*), a drug recently put upon the market, has an excellent effect in lessening the irritating properties of the urine, and soothing the inflamed mucous membrane. He also recommends the ergot of rye and the ergot of corn (*ustilago maidis*) as having almost a specific effect upon the disease. The fluid extract of corn silk (*stigmata maidis*) in doses of one drachm every two or three hours is also recommended. Lydston claims that during the height of the disease it is absolutely necessary to administer some anaphrodisiac preparation to allay sexual excitement and produce a sedative effect upon the inflamed part. For this purpose he recommends twenty or thirty grains bromide of potassium, or, if a more powerful effect is desired, such a mixture as the following one :

℞ Fl. ext. ergotmin. xv.
 Tr. gelsemiummin. v.
 Pot. bromidgrs. xx.
 Tr. hyoscyami min. xxx.
 Sy. aurantiiq.s. ad ʒss.

M. S. At bedtime.

Local medication in acute urethritis, Lydston claims, can be best accomplished by the injection method. The author claims that injections may be responsible in many instances for stricture and other untoward sequelae, yet, he says, as a rule it will be found that it is the abuse, and not the use, of injections that is responsible for unpleasant results. He says himself, "given at the proper time and in a proper manner and strength, injections are not only harmless, but very beneficial, and really prophylactic of stricture and other complications by limiting the severity and duration of the inflammatory process." Dr. Lydston holds also that it is not so much the form of an astringent as the method of its use that determines the beneficial effects. He prefers the sulpho-carbolate or iodide of zinc to the sulphate. Sulphate of thallin is also often of service in the strength of twenty grains to the ounce of rose water. He does not find in his experience that iodoform is even as efficacious as many other drugs, and in discussing that method of treatment by the insertion of soluble bougies of various types of medication, the author claims that such is not only illogical, but very injurious in acute urethritis, owing to its producing mechanical irritation. He also holds that the latest fad in treatment by the introduction of dry antiseptic powders through some patented device incurs the same objections as is the use of soluble bougies.

Dr. E. Harry Fenwick considers in Volume I. diseases of the urine at some length. In hematuria the objective signs and subjective symptoms furnished

by each patient permit of certain guidance rules being framed for the determination of the source and cause of the bleeding. They are based upon (a) examination of the urine; (b) examination of the patient; (c) critical examination of the symptoms complained of. Under the Treatment of Hematuria, Dr. Fenwick says that in hard carcinomata of the bladder, in engorged senile enlargement of the prostate and in renal hematuria, the result of cardiac disease, the bleeding is to a certain extent beneficial. He claims that the treatment of these cases is hopeless, and that it is better and kinder policy to allow the patient's life to ebb away rather than to prolong his misery by conserving his blood capital. In spontaneous hematuria, the first and most essential step is to allay the patient's fears and restore confidence; absolute rest in bed is of primary importance, and the external application of cold (especially in ruptured kidney), by means of ice-bags over the loin or bladder, or still better by means of Leiter's pliable coils, which can be moulded to any part. Dr. Fenwick thinks very little of administering styptics by the mouth, though he considers ergot fairly useful. He usually employs opium freely, except where it is contra-indicated, when he substitutes bromide of potassium, hyoscyamus or cannabis indica. Belladonna should be avoided. When considering diet, solid food should be left out of the question till the severity of the attack has abated. Purgatives are contra-indicated.

Volume II. deals with Nutritive Disorders, the principal contributors being Archibald E. Garrod, Thos. J. MacLagan and Sir Dyce Duckworth, all of London, England; Henry M. Lyman, of Chicago; Carl H. Von Noorden, of Frankfort-on-the-Main; Max J. Oertel, of Munich, and G. S. Dujardin-Beaumez, of Paris. Sir Dyce Duckworth takes, as his share of Vol. II., Addison's Disease and Other Diseases of the Adrenal Bodies. Addison's Disease is best described in his own words, though defined by him as such forty years ago, "Anemia, general languor and debility, remarkable feebleness of the heart's action, irritability of the stomach and a peculiar change in the color of the skin occurring in connection with a diseased condition of the suprarenal capsules." Dr. Duckworth says that the relative proportion of frequency of this disease in males and females is 119 to 64, the majority of cases occurring in men between thirty and fifty years of age. As to treatment, he claims that the main line indicated by a consideration of the primary pathological process in the adrenal bodies is that proper for tuberculosis in any part of the body, removal from urban environment to pure country air, asthenia being the keynote of the disease, generous diet and good wine. Recurrent paroxysms of gastric irritability and of cardiac asthenia are to be looked for. Counter irritation to the loins is of very little avail. The grafting of adrenal tissue into the body by employing an extract from the adrenal bodies of the sheep has frequently undoubtedly good effect. A dose equivalent to three grains of the gland injected into the veins of the dog were found to produce, first, a remarkable increase of blood pressure, powerful contraction of the arteries, stimulation of the vagus and also of the cardiac muscle. For tonic purposes there is no better remedy than iron combined with strychnine and arsenic. Strong purgatives are always to be avoided, and over-fatigue always guarded against.

Diabetes Mellitus is dealt with at great length in this volume by Carl von Noorden, of Frankfort-on-the-Main. In speaking of the treatment of this disease, he prepares his readers by stating that he would not enter into an account of "what is done" for diabetes, but would state only what he himself was in the habit of prescribing for the disease. He divides the treatment into (1) Prophylactic; (2) Etiological; (3) Methods of increasing the sugar-destroying function, and (4) Hygienic and Dietetic Treatment. Under Prophylactic Treatment, Dr. von Noorden says that it is but seldom that the physician is consulted sufficiently early to use any preventive measures. He makes a general statement, however, that in those cases where there is a history of many members being attacked by diabetes in early life, the early and permanent withholding of carbohydrates, especially of sugar, from the diet may prevent the occurrence of the disease. Under Etiological Treatment, the author divides his subject into (1) Neurogenous Diabetes and (2) Syphilitic Diabetes, consider-

ing both separately. Under Method No. III, of increasing the sugar-destroying function, he deals with (1) Treatment with pancreas-preparations; (2) Treatment by withdrawal of carbohydrates; (3) Treatment with mineral waters, and (4) Medicinal treatment. The Dietetic Treatment of this disease is given greatest length, "deserving," as the author puts it, "of the most careful consideration." Under all circumstances, he says, the diet in diabetes must be so ordered that the strength of the patient may be thereby maintained and as far as possible increased. He maintains firmly that the diet of the diabetic must also be so constituted that it will furnish available material to the value of at least 35 calories per kilogram per diem. Under certain circumstances carbohydrates are injurious to the sufferer from diabetes. Proteids and fat must constitute the main portion of the diabetic's diet, and sometimes, in severe cases, shall constitute the sole diet. Alcohol is useful in many ways in diabetes. It assists the patient in the taking of fatty food which otherwise he might take a disgust for, and introduces a not insignificant amount of fuel into the body. Dr. von Noorden gives also some general directions as to treatment, e.g., muscular exercise, bathing, treatment of constipation, effects of travel, etc., etc.

Dr. T. J. Maclagan in an article on Rheumatism, makes the statement that salicyl compounds cure rheumatic fever in the same way that the cinchona compounds cure intermittent fever. He says that it was the belief (1) that the rheumatic poison was allied in nature to that of intermittent fever; (2) that both were minute organisms; (3) that the morbid effects of each were due to its propagation in the system, and (4) that the curative effects of the cinchona compounds in intermittent fever were attributable to their destructive action upon the poison in that disease. It was this belief that led to the inference that salicin might exercise a like destructive action on the poison of rheumatism. "That it does produce this curative effect has been abundantly demonstrated," says Dr. Maclagan. There are but two ways in which the action of the salicyl compounds can be explained: either they so act upon the system as to render it insusceptible to the action of the rheumatic poison, or they so act on the rheumatic poison as to render it incapable of acting upon the system. Dr. Maclagan claims that there is but one febrile ailment in which the salicyl compounds are known to exercise a distinctly curative effect, viz., rheumatic fever, and in the whole field of practical medicine we know of nothing like it. As regards the heart complications of rheumatism, the author claims that the heart is specially apt to suffer in young people; that inflammation of the cardiac structures is more common in acute than in subacute attacks of rheumatism; and that rheumatic inflammation of the heart is limited to the left side.

Gout is dealt with in a very interesting and lucid section of Vol. II. by Dr. Henry M. Lyman, of Chicago. In considering the matter of treatment of this disease, Dr. Lyman says that one of the greatest secrets, as far as diet is concerned, in treatment, is the limitation of the ingestion of alimentary substances that are rich in nitrogen. The author points out how writers differ as to the use of meat by those of gouty diathesis, some advocating it, others the reverse. Milk should be depended upon very largely in cases of this kind, except in those who in their daily life have to undertake a good deal of muscular exertion. All excess in both eating and drinking must be avoided. Dr. Maclagan gives in his article various foods which can be partaken of at each meal without hurt, and which he advises should be followed as nearly as possible. He recommends copious drinks of water, such as that of the Poland Springs in Maine, patients who do so being rewarded with copious discharge of sand and gravel with the urine, followed by complete relief from preceding uneasiness in the region of the kidneys. Alcoholic beverages do not exert any appreciable influence upon the development of the gouty diathesis unless taken in the form of wine or malt liquors.

Dr. Archibald E. Garrod's chapter on Arthritis Deformans has many good points. He shows that the liability to this disease is greatest between the ages of forty and fifty-five, though no age really enjoys immunity from attack. Cases occurring in early adult life are apt to assume a more acute form. The

period of maximum liability in women is seen to correspond approximately to the years following the period of the menopause. Among the principal causes of the disease are *exposure* to frequent changes in the weather, *dietetic errors*, such as scanty food or such as is not readily assimilated, favoring the development of the disease. *Acute illnesses* of various kinds can prove exciting causes, as also some uterine disorders, worry, care, injury, etc. The author considers in his article, under the Clinical Features of the disease, the condition of the joints and muscles, the distribution of the joint lesions, the clinical character of the articular lesions, muscular atrophy, and muscular contracture as a cause of deformities. The abarticular phenomena are referred to under the headings, Cutaneous Pigmentation and Dystrophy, Subcutaneous Nodules, the pain in Arthritis Deformans, and minor sensory symptoms. Dr. Garrod devotes a small amount of space to Heberden's nodes, Arthritis Deformans in children, secondary and localized Arthritis Deformans. He points out, in discussing treatment, that it is particularly in the matter of treatment by drugs that the necessity of persevering steadily in any plan which is adopted becomes most obvious, and that it is because this fact is not sufficiently appreciated that many look upon the treatment of this disease by drugs as so hopeless, and that in so many cases one drug after another is tried in quick succession and without apparent benefit. The drugs most in repute are iodine and the iodides, arsenic and cod liver oil.

Dr. G. S. Dujardin-Beaumez, of Paris, contributes a section on Diseases of the Muscles, Primary and Secondary Myositis, etc. One chapter is devoted to Thomsen's Disease, who, himself a victim of it, described it as "a tonic spasm of the voluntary muscles consequent upon an hereditary psychic disposition." It is resistant to all therapeutic measures, no remedy having as yet been found which has the slightest effect. A chapter is also given to secondary Trophic troubles, among which are instanced some diseases of the muscles resulting in an atrophy of the fibre consequent upon inflammation of the muscles, others which follow surgical affections of the muscles, and still others consecutive to lesions in the vicinity. Certain atrophic affections are secondary to dyscrasie, or those general diseases which induce alterations of a nutritive character in muscular tissue. Various poisons again exert a baneful influence upon muscles. Frequently muscular atrophies are consecutive to diseases of the nervous system, such as locomotor ataxia. Then in the upper extremities we find atrophies of the Aran-Duchenne type, e.g., symmetrical atrophies beginning in the abductor brevis of the thumb and advancing to the hands and upper extremities. The principal type of muscular atrophy produced by medullary lesions is progressive muscular atrophy. It is in this disease that one notices the characteristic deformities of the hand, called variously claw hand, monkey hand, *main en griffe*, *main de squelette*. As to the treatment of those atrophies we must in the first place address our efforts to the relief of the primary causal affection and then endeavor to bring about an improvement in the muscular condition. Determine the cause of the trouble and then relieve it. When the muscular affection is consecutive to a lesion of the brain or cord, we may suspect syphilis and administer large doses of pot. iodide with some mercurial preparation added. For the relief of the atrophy, resort to massage and electricity. The last chapter is one on Obesity, its History, Etiology, Symptomatology, Pathological Anatomy, Diagnosis, Prognosis and Treatment by Dr. Max J. Oertel, of Munich, an article which is thoroughly interesting and instructive.

A System of Medicine by many Writers. Edited by THOMAS CLIFFORD ALBUTT, M.A., M.D., LL.D., F.R.C.P., etc., Regius Professor of Physic in the University of Cambridge, etc. Vol. VI London: Macmillan & Co., Limited. New York: The Macmillan Co. 1899. Toronto: A. P. Watts.

Volume VI. of this work, now come to a close, comprises Diseases of the Circulatory System (continued), Diseases of the Muscles and Diseases of the Nervous System. Those diseases of the circulatory system, not touched upon in Vol. V., and which are here dealt with, include under Heart Diseases, Right Side Valvular Diseases, Angina Pectoris and Diseases of the Mediastinum and

Thymus Gland. In his chapter on Angina Pectoris, Sir Douglas Powell states that this disease in the vasomotor form may occur at any age, but is most frequent between puberty and middle life. Though the more idiopathically neurotic forms are most prevalent among women, the attacks attributable to an exhausted nervous system from alcoholic and other excesses are more commonly met with in men. The author states that cold, in the sense of getting chilled, is the most important cause (whether immediate or remote) of attacks of angina in all its varieties. Those occupations and professions in which, through nervous strain, arterial tension ranges high, are favorable to arterial disorders. Gout is a frequent causative element in vasomotor angina. The recent influenza epidemics have had as a result frequent attacks of angina. Dyspepsia, constipation and other disorders of the intestinal tract act as causative agents also. Emotion of any kind will act similarly. Dr. Powell claims that the treatment is both prophylactic as well as medicinal. Mode of life must be considered; over-excitement, moral errors, dissipation, excesses in tobacco smoking and alcohol must be inquired into and corrected. The dietary of the patient must be carefully considered, especially in those about the climacteric period, or who present gouty phenomena or venous plethora. In the latter class of cases such waters as Carlsbad, Homburg and Nauheim are most beneficial. What will do much to relieve the patient also is the definite assurance to them that their distressing and painful symptoms are not dependent upon cardiac disease and not of a dangerous nature. The medicinal treatment of vasomotor angina is of considerable importance. It consists in lowering any excess of blood pressure which is not corrected by the hygienic and dietetic measures spoken of. Careful regulation of the bowels is most important. In highly neurotic persons, especially those about the menopause, a little hydrobromic acid and bromide of sodium may be prescribed for a time. Iron should be given in anemic cases. Arsenic is also a valuable remedy and may be combined with valerian in the form of a tenth of a grain of arseniate of iron with two grains of extract of valerian after food three times a day. The author warns the physician to insist upon the tendency to fly to stimulants and sedatives, during an attack, being stopped.

Under Diseases of Blood Vessels and Lymphatics, Thrombosis, Embolism, Phlebitis, Arterial Degenerations and Diseases, Aneurysm of the Aorta and Aneurysms of the Arteries in the Abdomen, Diseases of the Lymphatic Vessels are also treated, that subject being left in charge of Dr. Rolleston. The other contributors to this department are Dr. F. T. Roberts, Dr. G. Newton Pitt, Sir R. Douglas Powell, Prof. Welch and Sir W. T. Gairdner. Diseases of the Muscles are not taken up at length, there being but four contributions under that heading, including Myositis, by Dr. Batten; Myotonia Congenita (Thomsen's Disease), by Dr. Hale Waite; Idiopathic Muscular Atrophy and Hypertrophy, by Dr. Charles E. Beevor; and Facial Hemiatrophy and Hemihypertrophy, by Dr. Andrew Turner. Under Diseases of the Nervous System, a chapter of unusual interest and completeness is that by Prof. Sherrington and Dr. Sharkey, on Tremor, "Tendon Phenomenon" and Spasm. These two gentlemen present for readers of this book a very complete study of this somewhat obscure subject, and throw light on many points up till now quite obscure. Dr. Turney contributes an article on Neurotrophic Affections of Bones and Joints, and Mr. Hopkins one on Neurotrophic Diseases of Soft Tissues, both of which show considerable research and study. Dr. Allbutt has under this heading a short chapter on Adiposis Dolorosa, a disorder characterized by irregular, sometimes symmetrical, deposits of tissue in various portions of the body, which are preceded by or attended with pain. This is the disease first described by Dercum himself, and therefore the contribution though short is most interesting. Dr. Barlow gives two chapters, one on Raynaud's Disease and one on, what he terms, Erythromelalgia, a chronic disease in which a part or parts of the body suffer with pain and local fever, made greatly worse if the parts are allowed to hang down. Dr. Gibson and Dr. Fleming contribute an article of some length on Diseases of the Spinal Nerves, Dr. Judson Bury one on Multiple Symmetrical Peripheral Neuritis,

and Dr. Head on Trigeminal Neuralgia. Dr. Head's article on Trigeminal Neuralgia is most interesting. He divides his subject into four classes: 1. Neuralgia quinti major (tic douloureux, epileptiform neuralgia); 2. Neuralgia secondary to diseases of the nerves of the head, such as tumors involving the fifth nerve; 3. Neuralgia minor, viz. (a) true visceral referred pains due to disease of the intimate structure of some organ of the head, or (b) pains due to disease of the membranes or tissues surrounding some organ or to actual implication of the finer nerve twigs by the morbid process, and (c) neuralgias of the head and face arising as direct consequences of diseases in organs other than those of the head; 4. Neuralgias arising from general bodily states, such as neurasthenia, hysteria and the like.

Dr. Head goes into his subject in a thorough and complete manner, considering it under each of above headings. In the treatment the author lays down as the first and foremost rule to find out the organ from which they arise and to treat the conditions found there; also, treat the general condition of the patient, even though the local cause be already known, for whatever the cause of the pain it is always intensified by inanition, cachexia, anemia or any general diseased state of the body. If you find that the neuralgia bears any relation to syphilis or malaria, the specific remedies will, of course, be tried before any other treatment be adopted. The antipyrin group was found most useful by the author, phenacetin in ten and fifteen grain doses more especially. Gelsemium or butyl chloral are also most valuable, as also nitroglycerine in doses of $\frac{1}{10}$ to $\frac{1}{20}$ gr. three times daily.

A chapter of over seventy pages is written by Dr. Aldren Turner on Diseases of the Cranial Nerves, a contribution of great merit and written in an easy and most readable style. Medical Ophthalmology is dealt with by Mr. Brudenell Carter. Diseases of the Spine are treated of by Prof. Horsley and Dr. J. S. Risieu Russell, the former taking up Diseases of the Vertebral Column, Tumors and Compression Palsies, and the latter Affections of the Spinal Meninges.

In referring to this, the last, volume of a System of Medicine, as Allbutt's has turned out to be, we cannot but congratulate the publishers for the manner in which they have carried out this work. Of course, the delay between the publication of some of the volumes was unfortunate, but could not be prevented. The manner in which the material has been presented, the typographical excellence of each volume, and above all, the lucid manner in which each and every subject has been presented to the reader, is just cause for hearty congratulation to editor, contributors and publishers alike. It is little wonder that Allbutt's System of Medicine has had such a sale.

W. A. Y.

Saunders' Medical Hand Atlases. Atlas of External Diseases of the Eye. By PROF. DR. O. HAAB, of Zurich. Edited by G. E. DE SCHWEINITZ, A.M., M.D. Philadelphia: W. B. Saunders. 1899. Toronto: J. A. Carveth & Co. Price, \$3.00.

This last volume of the now well-known Saunders' Series of Atlases many of which have already received favorable comment in these columns, is not merely an atlas of the external diseases of the eye, but also a treatise on the mode of examination of the eye, and the pathology and treatment of its diseases. An atlas of disease can never take the place of clinical observation, but, unfortunately, it is not given to all to have large clinical advantages. It is the aim of such atlases as these to give us, in the greatest possible measure, these advantages, to introduce into our libraries the clinic of a large hospital. Necessarily, the illustrations are typical, although typical cases are those most easily recognized.

There are better atlases of the external diseases of the eye, but they cost at least six times as much, many of them even more; but they are by no means six times better. The lithographs of this atlas are here and there too highly colored, but it may be said that there has not yet appeared an atlas published at so reasonable a price which can at all be compared with this in the accuracy and fidelity of its illustrations.

J. M. M.

Diseases of the Ear, Nose, and Throat, and Their Accessory Cavities. By SETH SCOTT BISHOP, M.D., D.C.L., LL.D. Professor of Diseases of the Nose, Throat, and Ear in the Illinois Medical College; Professor in the Chicago Post-Graduate Medical School and Hospital. Second Edition. Revised and enlarged. Illustrated with ninety-four chromo-lithographs and two hundred and fifteen half-tone and photo-engravings. Extra cloth, \$4.00 net; sheep or half-russia, \$5.00 net. The F. A. Davis Co., publishers, 1914-16 Cherry St., Philadelphia.

A noticeable feature of Dr. Bishop's book is the profuseness of illustration. Of the engravings, many are of the author's own specimens, an unusual number being used to demonstrate the bony structures of the nose and of the accessory cavities. The chapters on this subject, and on diseases of the mastoid, are much more complete and satisfactory than those usually found in a text-book of this size. The treatment of diphtheria with antitoxin is endorsed, but with rather less positiveness than experience would seem to warrant.

J. M. M.

The Anatomy of the Central Nervous System of Man, and of Vertebrates in General. By PROF. LUDWIG EDINGER, M.D. The F. A. Davis Co., Philadelphia. 1899.

This admirable translation by Dr. Winfield S. Hall, is from the fifth edition of the German work, and forms an exceedingly valuable contribution to the literature of the subject. The treatment is accurate, yet exhaustive, and while much that is new is introduced, the main end of the treatise, suggested by the title, is never overlooked. The book contains nearly five hundred pages, and is copiously illustrated by two hundred and sixty figures in color. In the preliminary chapters a short history is given of the progress of investigation of the central nervous system. The work is most timely, and affords a much needed guide to a subject that is too vaguely understood.

E. H. S.

Defective Eyesight: the Principles of its Relief by Glasses. By D. B. ST. JOHN ROOSA. New York: The Macmillan Company. 1889. Price, \$1.00.

The general practitioner who wishes to know the principles upon which the prescription of glasses is based will find this elementary manual interesting reading. The mathematical terrors of optics and refraction are carefully relegated elsewhere, while the practical application of the principles deduced therefrom are set forth lucidly and concisely.

J. M. M.

REPORTS RECEIVED.

Thirty-first Annual Report on Asylums, Prisons, and Public Charities of Ontario. 1898.

It has been found impossible to send a circular concerning the Canadian Medical Association to every practitioner in the Dominion, as the lists of addresses are imperfect. It is particularly requested that any reader of this Journal who has not received a circular, and who takes any interest whatever in the advancement of professional and scientific progress, will send a card to the General Secretary, Dr. F. N. G. Starr, 471 College Street, Toronto, from whom he will receive all information.