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# CANADA

## MEDICAL & SURGICAL JOURNAL

SEPTEMBER, 1883.

Original Communications.

IS PNEUMONIA INFECTIOUS?

By GEORGE WILKINS, M.D., M.R.C.S., Eng.,  
Professor of Medical Jurisprudence, McGill University; Physician to  
Montreal General Hospital.

There are but few physicians of even only a moderately large practice who, through peculiar circumstances, can have failed to ask themselves the above question on some occasions. It is the experience of each of us to have a much greater number of pneumonic cases at certain seasons of the year, so that, collectively, the disease is very prevalent at that particular time. It then forms a high percentage of prevailing diseases as compared with other seasons, and certainly has the appearance of being, to some extent, dependent on the sudden changes of temperature. But cases of pneumonia do frequently occur with which climatic changes in temperature cannot possibly have anything whatever to do. So, also, a not at all unusual circumstance is the occurrence under the same roof of two, three, or four cases of pneumonia, all of which cannot be considered the results of cold. Then the above question forces itself upon us. Friends of the patients will put the question—"What is it, doctor?" "Is it something taking?" Such was my experience four years ago, and, I feel certain, must be the experience of other physicians also.\* To reply unqualifiedly "No," with our present know-

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\* Dr. Bell, Medical Superintendent of the Montreal General Hospital, has kindly furnished me with a synopsis of the report of four cases that he met with, which he has permitted me to make use of, and which are embodied in this paper, together with four cases of my own, which we believe to be altogether independent of climatic changes of temperature.

ledge, would scarcely be quite correct. The views of the more important writers on this subject are widely different. Whilst some maintain, as of old, that all cases of pneumonia are the effects of cold, others are equally decided in their opinion, indeed more so, that all cases of pneumonia are of an infectious nature. Others, again, believe that both views are too exclusive, and that really two distinct forms exist. Without committing ourselves decidedly to any one of these views, we cannot help thinking that clinical experience appears, at any rate, to support the latter view. That there is an infectious form of pneumonia there can be little doubt. Hirsch and V. Ziemssen long ago advocated this theory. The evidences in support of such a view are of so convincing a nature, and, now that attention is being drawn to the question, are accumulating so rapidly, that we propose placing before our readers a synopsis of some of the more important ones brought forward. This evidence is of a two-fold character. On the one hand, we have histories of epidemics that can be accounted for only on the ground of the existence of a specific poison. On the other hand, we have microscopical investigations which, though as yet incomplete, even in this state add great weight to arguments derived from these epidemics. To refer first to some of the epidemics recorded.

The evidences of the occasionally epidemic character of pneumonia are so strong that even the most skeptical must admit it. Langer\* quotes from Laveran† an epidemic which broke out on board the ship *Saint Jean d'Arc*, in mid-ocean, during the months of June and July, 1860, during which time fifty cases occurred. By the commencement of October, 86 men had been attacked. The disease disappeared from this vessel only after transference of all the sick to another ship. In 1861, when this same vessel was again manned, the disease returned with increased virulence, necessitating disembarkation at Plymouth. Butry‡ mentions the occurrence of an epidemic of pneumonia

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\* Wiener Medizinische Wochenschrift, 1883, Nr. 27, Seite 842.

† Gaz. hebdom., 1865.

‡ Deutsches Arch. f. Klin. Med., xxix, s. 193, quoted by Centralblatt f. d. Medicin. Wissens., 1882.

that took place in a small village (Bekerbach) of 460 inhabitants, of whom 20 persons (4 per cent.) contracted this disease, and of whom 9 died. In none of the villages around were there any cases of pneumonia. He mentions, amongst others, the case of the son of a miller who contracted the disease away from his father's house, and was brought home to the mill, in which, subsequently, the father, mother, and a grandchild contracted fibrinous pneumonia. Scheef,\* an assistant of Jürgensen's, mentions an epidemic of pneumonia that occurred in the village of Lustnau (1,633 inhabitants). For the nine years previous to the occurrence of the epidemic there were 29 cases in all; from January to May of 1881, there were 44 cases; from the latter date up to the following November, there was not a single case. In quite a number of houses in which pneumonia occurred in this epidemic, there had been, within the last four or five years previously, occasional cases of the same kind. In this epidemic the mortality was very high (33 per cent.) At the autopsies, the inflammation was found not limited to one lobe, nor even to the lungs. In many of the cases, parenchymatous inflammation of other organs was present, pointing, as the writer believed, to a powerful infecting cause.

Penkert† describes an epidemic of pneumonia occurring in a small village of 700 inhabitants (Rieth-Nordhausen). The source of the disease was considered to be the miasma from a well into which water flowed from a church-yard. In all, 42 individuals were affected within the space of two months.

Köhnhorn reports‡ 321 cases as having occurred in Wesel garrison during the space of eight years. The result of his experience is a complete denial of cold as being a cause of croupous pneumonia. He regards it as an infectious disease. So, also, does Dr. Bary, physician to one of the largest hospitals in St. Petersburg. During the last 30 years he has attended personally over 700 cases of pneumonia. From his study of these

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\* Jürgensen, Croupose Pneumonie. Beobachtungen aus der Tübinger Poliklinik. Tübingen, 1883.

† Berlin Klin. Wochenschrift, 1881, No. 40.

‡ Vierteljahrsschrift f. gericht. Medicin., 1881, s. 81.

cases, he does not consider that there can be the slightest doubt it is an infectious disease, and that the inflamed lung is simply a local symptom.\*

Dr. H. Schmid reports† an epidemic which occurred in a small village (Zang) of 549 inhabitants, in which 19 individuals were attacked with croupous pneumonia. The first one took ill on the 5th of April, 1882; the second on May 11th, and between that date and the 11th of July, 18 others contracted the disease, when it quite disappeared. Amongst the lot were six cases in one house and in the same family. The cases are so interesting that I will mention a few of the more important circumstances related by Dr. Schmid. The family was one of the poorest in the village, and all slept in a room over the cow-stall. The family consisted of the man and his wife and six children. Of these eight, as I have just stated, six took ill. The first, a child 18 months old, died on the 24th May; on the 27th, a child, 5 years old, commenced to improve on the tenth day; on the 13th June, a boy aged 11 years sickened, and after four days commenced to improve; on the 15th, a child aged 9 years contracted the disease; on the 19th of June the father and a child aged 3 years took ill. The three last mentioned were ill only four days. In all these cases, as well as in the others, there was cough, pain in side, high temperature, rapid breathing, besides other physical signs of pneumonia more or less marked.

As I have stated in the earlier part of this paper, Dr. Bell and I have each of us had four cases, which can be accounted for, only on assuming the contagious nature of this disease. A short report of the cases occurring in my practice is as follows:

On the 4th May, 1879, I was called to see Mrs. M., who expected her confinement in the middle of the month. Her friends thought possibly labor was setting in. On my visit I found her with rapid pulse (124) and high temperature ( $104.2^{\circ}$ ), frequent respirations and slight cough, complaining of headache,

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\* Vierteljahrs f. Gericht. Med. u. Öffentliches Sanitats. July, 1883. Seite 117.

† Berlin Med. Wochen., 1883, s. 346.

but no labor pains whatever. I suspected pneumonia, although examination revealed nothing, prescribed Liq. Ammon. Acetat. and Tr. Aconit., and warned her friends that labor might set in at any moment in consequence of the high fever. Within twelve hours labor pains had commenced, and in three hours after she was delivered of a fine healthy child. Now for the first time she complained of pain in right side, had bloody expectoration, subsequently becoming rusty-colored, and all the physical signs of inflammation of the base of right lung, which subsequently extended, involving the entire lung, accompanied with extensive consolidation. Evening temperature never went below  $104^{\circ}$ . On the fifth and sixth day of the disease it was  $105^{\circ}$ , and at 9 a.m. of the sixth day reached  $106^{\circ}$ . At 1 p.m. and 5 p.m. of the same day it was  $108^{\circ}$ , patient dying at 7 p.m.

On the 5th May, a child of hers, aged 6 years, took ill, with high temperature ( $103.4^{\circ}$ ), rapid pulse, and the physical signs of pneumonia. This child commenced to improve on the sixth day of its illness.

On the 9th May, Mrs. M.'s mother, aged 75 years, who lived in adjoining house,\* but under the same roof, took ill with rigors, fever, cough, rusty sputum, and marked dullness over the entire right lung. With this patient the mental faculties were interfered with. She lay like a patient suffering from septic poisoning—in a half stupid condition; whereas Mrs. M.'s mind was clear up to within one hour of her death. This old lady died on the fifth day of the disease.

In neither of these cases was an autopsy permitted to be made.

On May 25th, I was called to see Mr. L., son-in-law of the last patient, and who lived in the same house. He had had a severe rigor on the previous evening. On examination, I found base of left lung consolidated, temperature  $104.2^{\circ}$ , pulse 112,

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\* This was practically one house, as the two houses communicated by a common porch over back doors, and there was constant intercourse between the two families. A point which may be of some importance in connection with Jürgensen's and his assistant's theory, that it is a ground or house disease (Hauskrankheit), is the fact that this building contained four tenements, two up-stairs and two on the ground flat. The cases of pneumonia were limited to the families on the latter flat. The house is an old-fashioned one, with this flat built close to the ground, and no windows to the cellar to permit of ventilation of the ground.

respiration 36. I immediately placed patient on large doses of quinine (20 grains), subsequently increased to 30 grains, but without any marked effect. On the 31st May, with the approval of Dr. Roddick, who saw patient in consultation with me on three occasions, 20-grain doses of soda salicylate were given every two hours for four doses. Although both temperature and pulse were brought down (temperature 99°, pulse 100), respirations increased to 46. On the 1st June temperature rose to 103°, pulse 122, respiration 40, when four more doses of the salicylate were ordered. From the condition of my patient after he had taken the 80 grains of salicylate, I determined never again to prescribe it as an antipyretic in pneumonia. At 11 p.m., six hours after last dose, he was in an alarmingly prostrated condition—unable to move or speak above a whisper, breathing rapidly, with a feeble pulse of 146, indeed in a condition of collapse. On large doses of stimulants he commenced to improve. On the 2nd of June crepitation was discovered in apex of right lung, rapidly extending downwards, with accession of other symptoms of pneumonia. On the 6th of June symptoms commenced to improve, and on the 17th of the same month the physical signs had quite disappeared. Patient was a long time convalescing.

I see that Jürgensen, in the brochure lately published, to which reference has already been made, says that salicylic acid is not suitable for treating the fever of pneumonia on account of its depressing action on the heart. My experience in this case of its action as an antipyretic in pneumonia is quite in accord with his; so much so, that I have never attempted it since.

Dr. Bell summarises the report of his cases as follows:—

On the 13th of March, 1880, I was called to see Harry B., aged 38 years, a former Hospital servant, and a hard drinker. He had gone to his work in a cigar factory in the morning, feeling quite well, but about noon he had a severe rigor, followed by a sharp pain in his left side. He came home at 1, and I saw him about 6 p.m. There was then cough, with rusty expectoration, severe stitch-like pain, hurried and labored breathing, and a body temperature of 105°F., with fine crepitation over a considerable area of the lower half of the left lung. I had him

removed to Hospital immediately. Here he passed through a severe attack of typical sthenic pleuro-pneumonia, with rapid and extensive consolidation of the lower portion of the lung. The temperature fell suddenly about the eighth day, but rose again gradually in a day or two, and very soon the left pleural cavity was found to be moderately filled with serous effusion. This disappeared gradually, however, without tapping, and he was discharged in good health on the 1st of June, having been eighty days in Hospital.

On the 14th of March, the day following the admission of the last patient to Hospital, I was called to see A. B., aged 35 years, a relative of his, who worked in the same factory and lived in the same house with him. I found that he had been attacked in a similar manner, and had a well-marked pleuro-pneumonia. He was removed to his home, and passed safely through a severe attack, terminating by critical defervescence and rapid recovery.

On the 18th, four days later, the wife of the first patient, Emma B., aged 30 years, was attacked suddenly with stitch in the side and chill, followed by all the symptoms of pneumonia. She came to Hospital on the following day, with consolidation of the lower half of the left lung, and passed successfully through a typical severe pleuro-pneumonia, with critical defervescence on the sixth day, followed by speedy recovery.

On the 19th, the day on which the last patient was brought to Hospital, her brother, aged 20 years, who also worked in the same cigar factory as her husband, and who was now the sole remaining member of the household, was attacked just as the others had been towards the close of the day, and came direct to Hospital. He was admitted, and passed through a very severe attack of pneumonia, with specially severe pleuritic symptoms. The disease terminated favorably, as in the other cases, by critical defervescence.

It will be observed that in a household consisting of only four persons, three of whom worked in the same cigar factory, all were attacked within a week with pleuro-pneumonia, and that the mode of onset, course and termination of the disease was precisely similar in all, the prominent symptom being pleuritic



pain, followed, in the first case only, by effusion into the pleural cavity. On referring to the Hospital books, I find, also, that during the ten days from the 13th to the 23rd of March, 1880, eight cases of pneumonia were admitted.

Dr. Ritter\* of Zurich has written a most exhaustive article based on seven cases which occurred in his practice. Their history is, in many respects, very similar to that of Dr. Bell's cases and mine. The disease commenced in the house of a relative of his. Two brothers, his sister-in-law, a maid, and another servant, all of whom lived in the same house, sickened within five days. Five to six days after, two other individuals sickened in the same manner. Three of these patients died, on all of whom an autopsy was made by Prof. Eberth. The anatomical alterations in all were limited to the lungs, with some slight swelling of spleen and kidneys; stomach and intestines perfectly normal. Ritter traces the infection to a room in his brother's house in which a number of birds were kept, but as birds had been in this room for some years and no disease arisen, he considers the infection to have been imported. About a fortnight before the breaking out of this "house epidemic," as he calls it, some birds had arrived from Hamburg, and at about the same time another case from Vienna, and both were unpacked in this room. To either of these he attributes the source of infection. Every one of his patients had spent more or less time in the same room.

One of the most important and instructive contributions to the literature of pneumonia is the work already referred to by Jürgensen and his assistants. The "Poliklinik" embraces a working district of about 4,000 souls, in which this institute possesses the monopoly of medical treatment. Between the years 1873 and 1881 inclusive, over 500 cases of pneumonia were treated and autopsies made on all the dead. Keller, who writes one of the sections of this work, regards the disease as an infectious one, which has its origin, like ileo-typhus (typhoid fever), from the under-ground of dwellings. He looks upon pneumonia as a house disease (Hauskrankheit). Just as typhoid fever has a predilection for certain houses, so also does pneumonia occur in

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\* Deutsches Archiv f. Klin. Med., Bd. XXV., seite 53.

certain dwellings. In referring to the old doctrine of cold being the cause of pneumonia, he thinks that catarrh of any kind, which may be the result of a cold, will favor the implantation of the pneumonic parasites, just as a small wound will be a favorable opportunity for the reception and growth of the erysipelas cocci.

Sir Wm. Jenner,\* as far back as 1874, was so convinced of the existence of a contagious pneumonia that he opposed the opening of a drain in a school at which two of his sons attended. He assigned as a reason the probable danger of pneumonia occurring in consequence of the escape of sewer gas. Notwithstanding his protest, the drain was opened. On Friday, March 20th, a high tide in the Thames blocked up the mouth of the sewer, and the compressed gases forced an opening through the ventilator. Next morning, a boy sleeping in one of these rooms was taken seriously ill with pneumonia; on the evening of the same day, two other boys and two servants became similarly affected. One of the servants ultimately died.

Had the pneumonia here been due to the incident mentioned, that is, the blocking up of the sewer, the occurrence of a case of pneumonia next morning would imply an incubation period of much shorter time than is generally admitted. In Ritter's cases the time varied from 9 to 14 days, although he, as well as others, quote as short a time as three days. In Sir Wm. Jenner's cases, it is more than likely some of the gases had escaped into the room previous to the incident referred to.

Langer,† physician to one of the hospitals at Vienna, does not quite agree with Jürgensen and his pupils. He supports the view that there exists two distinct forms of pneumonia—that is to say, ætiologically speaking. He does not, however, consider that there is any difference in the anatomical seat of the disease, nor in the pathological processes. He, however, quite agrees with Jürgensen that the infectious form of pneumonia is a "house disease." He mentions a most interesting fact, that most of the cases that came under his care in hospital were brought from

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\* *Lancet*, Sept., 1878, page 419.

† *Wiener Medizinische Wochenschrift*, 1883, Nr. 27, Seite 842.

houses and from streets, which, for a series of years back, had been noted as furnishing the hospital with cases of typhoid fever. He says that last autumn an unusually large number of cases of pneumonia were in hospital coming from this district, whilst the proportion of cases of typhoid fever were smaller than usual. It so happened that the season was an unusually severe one for typhoid fever, that disease prevailing in Vienna everywhere except in this particular district. Hence he considers this "pneumotyphus" (the name by which he implies the infectious form of pneumonia) as in some sense vicarious of typhoid fever.

Lænnec, although he believed cold to be the most common cause of pneumonia, recognized the fact that there were marked exceptions. He says\* :—"The Russian, who issues from a vapour bath to roll himself in snow ; bakers, who, almost naked, leave the broiling atmosphere of their bakehouses to be exposed to a cold temperature several degrees below zero, are never attacked with pneumonia ; but porters, who stand long at the corners of streets, are frequently seized with it." Lænnec continues thus : "Pneumonia is in general a disease of winter and cold climates ; it is uncommon in the equatorial regions." This belief as to the causation of pneumonia, which existed from the earliest times, still prevails to a great extent. A most important kind of evidence—that of statistics—shows that, as far as cold climates are concerned, the reverse really is the case. Sanders has published in detail, in Seguin's *Archives*,† most instructive statistics with reference to the occurrence of this disease in the United States, which he summarizes in another place‡ as follows :—

No. of States.	Mean Temperature (F°).	Pneumonia per 1000 inhabitants.
1 .....	36.2°	0.39
4 .....	40.8° to 44.6°	0.71
10 .....	45.9° " 49.6°	0.80
8 .....	51° " 54.6°	0.86
6 .....	55.3° " 58.6°	0.96
6 .....	60° " 64°	1.46
3 .....	66.4° " 69.6°	1.41

Statistics are also given for a number of European countries,

\* Lænnec, *Treatise on Mediate Auscultation*, translated by Herbert, London, 1846, p. 212.

† *Archives of Medicine*, Vols. V. and VI.

‡ *American Journal of Medical Sciences*, July, 1882, p. 93.

which bear out his assertion that the death rate of pneumonia increases as we reach the equator.

About two months ago Riesel published a most exhaustive paper on *The Ætiology of Croupous Pneumonia*,\* in which he showed conclusively that its occurrence was quite independent both of cold and of prevailing winds. Although the disease prevailed in the colder seasons of the year, it was not in the coldest months, nor after the coldest days that it made its appearance in the majority of cases. The direction of the wind made very little difference in the number of cases; the proportion, also, was about the same for the calm days as for the windy ones. He considers it quite as absurd to say that croupous pneumonia was due to cold or to prevailing winds as it would be to say that acute tuberculosis was due to the same cause, because more cases of this kind made their appearance in the winter and spring months than at other seasons of the year.

Let us now see what the microscope has been doing towards a solution of the question. Our knowledge of infectious diseases is yearly increasing; so, also, is our acquaintance with micro-organisms. Each successive year either new organisms or newly discovered situations for parasites already known are described. The larger number of these exist only in the imagination of immature microscopists. Some sink into oblivion for but a few years, to reappear with greater prominence. Such appears to be the fate, or shall we call it the fortune, of the parasites first described by Klebs† in 1875 as existing in, and characteristic of, croupous pneumonia.

About a year ago, Friedlander‡ wrote a very instructive paper on the result of his researches on all the cases of true croupous pneumonia that he had met with since the previous September. Positive results were obtained in every one of the cases (eight).§ They all contained micro-organisms, the description of which corresponds exactly with those subsequently discovered by Ley-

\* Vierteljahrsschrift für Gericht. Med. u. Öffentliches Sanitätswesen, Bd. XXXIX., seite 87.

† Arch. f. Exp. Path., IV., Heft V., u. VI.

‡ Virchow Archiv., LXXXVII, S. 319.

§ Since then Friedlander has reported twelve other cases with equally positive results. See *Deutsche Med. Wochen.*, 1883, No. 4.

den, to which I will refer directly. An interesting fact mentioned by Friedlander is that neither in the alveoli of the lungs nor in the tissues of the pleura do they occur in the form of colonies. In greyish-red hepatization, many hundreds, sometimes thousands, of these small parasites were found within a single alveolus. Although absent in the walls of the alveoli, and also in the walls of the bronchi and blood-vessels in most of the cases, they were found in one of the cases in enormous masses in the lymph-paths of the interstitial connective tissues, especially those paths which led from the hepatized region to those alveoli which contained air. Friedlander appears to attach much significance to this fact. Micrococci could arise from the dead substances of the fibrin in the fibrinous masses of the bronchi: such an origin he does not believe to be possible in the exudation into the alveoli. Their presence in the lymphatics, however, is an unquestionable proof that they can have no such origin. The "capillary emboli" described by earlier writers as occurring in malignant endocarditis, puerperal pyæmia, &c., Friedlander, agreeing with V. Reclinghausen, says are micrococci. The varicose capillaries so frequently met with in these conditions can only be due to a substance which is capable of growth.

Quite recently an interesting and most instructive discussion on infectious pneumonia took place at a meeting of the Medical Society at Berlin. The subject was introduced by Professor Leyden,\* who described these organisms very much as Friedlander had previously pictured them—as *cocci* of an ellipsoid form, their length amounting to almost one millimeter, their breadth about one-third less. For the most part they are found in couples, hence called *diplo-cocci*. Leyden introduced a hypodermic needle into the hepatized lung and withdrew a small quantity of blood and exudation, and was able to demonstrate these parasites in a tolerably large number. On two occasions, in which the inflammatory trouble was of but a slight nature, he could find no micrococci. In one case, which resulted in death, a small quantity of the exudation was scraped off the cut surface of the hepatized lung on to a glass slide and examined after staining. They were most abun-

\* Zeitschr. f. Kl. Med., VI., 1883, Seite 267.

dant, especially so in red hepatization. They resembled those found during life, of an oval shape, united so as to form diplococci, and occasionally in chains of three to four joints. Sections of the lung, hardened in alcohol, were also examined, and these parasites found in them also.

Dr. Gunther mentioned the case of a man, 48 years of age, brought into the Berlin City Hospital in an unconscious condition, ill previously nine days. A physical examination showed marked dullness of right lower lobe, but on account of the difficult breathing of the patient it was impossible to decide whether he had here a case of pneumonia, pleurisy, or pleuro-pneumonia. To determine the true nature of the trouble, he introduced the hypodermic needle into the dull area and withdrew a few drops of a cloudy, sanguino-purulent mass. When examined microscopically, besides containing a large number of lymphoid cells and red blood corpuscles, there was present a very large number of actively moving diplococci of an elliptical form. After death, which took place five hours after his being brought into hospital, the whole of the right lower lobe was found hepatized—partly grey, partly greyish-red—and the pleural cavity obliterated. Dr. Gunther supplemented his remarks by showing, under the microscope, a preparation taken from this case. Köbner, who saw this preparation, said it reminded him of micrococci which he had discovered, in 1872, in blood and serum of animals which subsequently died during the epidemic of that year of the well-known *peri-pneumonia bovum*.\*

In two of Ritter's cases Eberth states that micrococci were present in the exudations partly scattered and partly grouped so as to form colonies; in one of the cases the lymphatics of the pleura were completely filled with the micrococci.

Ziehl,† assistant physician to Prof. Erb, professes to have dis-

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\* Whilst this paper was in the printer's hands I received the August number of the *Archives de Physiologie*, in which is a paper by MM. Cornil and Babes on *Peripneumonie Contagieuse* of cattle. The seat of the micro-organisms, they say, is in the subpleural and interlobular connective tissue and in the lymphatics of the lung. They consider the histological lesions of the lobular pneumonia of measles, analagous in many respects to those of the cattle disease. These observers describe a micro-organism present in the secretions of the respiratory mucous membranes, which they consider characteristic of measles and the carriers of the infection.

† Centralblatt f. d. Med. Wissens, 1883, S. 433.

covered micrococci in the sputum similar to those described by Friedlander as characteristic of pneumonia. That characteristic micrococci should be found there is what we should expect, knowing the source of the sputum—that is to say, if such characteristic micrococci or diplococci really exist. He, however, qualifies his statement that the round form are of more frequent occurrence.

Litten,\* about eight or nine months ago, described a form of pneumonia which he calls “contusions-pneumonia.” This, he says, frequently makes its appearance two or three, or even several days after receipt of an injury, patient being quite able to work during the interval, until he comes under treatment for the pneumonia. He says that it frequently arises without injury of the bones or any affection whatever of other organs. Ziehl refers to this class of cases, and thinks it quite possible that the presence or absence of Friedlander’s micrococci may help to determine whether the lung affection is of an infectious nature or due to trauma.

Quite recently Griffin and Cambria have published † the results of inoculation experiments performed by them on forty animals. The material made use of was taken from five patients suffering from croupous pneumonia, and consisted of expectoration ‡ and of the blood taken from these individuals. The conclusions they arrived at as the results of these experiments are, that pneumonia is not an infectious disease. Their inoculations resulted invariably in fatal septicæmia, but no pneumonia. Their conclusions, however, cannot be accepted, as they do not appear to have inoculated with the exudative material described by Leyden, withdrawn from the living lung.

To draw conclusions such as these experimenters have done from negative results is, to say the least, unreliable. No one doubts the infectious nature of typhoid fever, yet we have the authority of Klein § for stating that no one has as yet succeeded

\* Zeitschr. f. Klin. Med., Bd. V., Seite 26.

† Résumé published in Archives Italienne de Biologie, tome III., p. 189.

‡ They profess to have discovered a special bacillus in both the blood and expectoration of pneumonia, different from the monads described by Klebs as existing in the exudation of pneumonia.

§ Report of the Medical Officer of the Privy Council, 1875, p. 83.

in transmitting it to the lower animals. He has experimented on monkeys, guinea-pigs, rabbits, dogs, cats and white mice, and all without success.

Should these Italian scientists experiment on similar animals as those they used in their pneumonia investigations, with the pus from a hard chancre, they would be quite as unsuccessful in producing the specific disease. Prof. Köbner,\* of Berlin, and Prof. Neumann,† of Vienna, have performed numerous experiments on various animals, and so far have not succeeded in transmitting syphilis from man to animals, although with the pus from soft chancres inflammation of the lymphatics is produced. So that to draw conclusions that pneumonia is not an infectious disease, simply because it has not yet been demonstrated to the satisfaction of all that the disease is dependent on, or associated with, the presence of some specific parasite, or that it can be inoculated, would be extremely erroneous.

## THE PLASTER OF PARIS DRESSING.

BY J. E. MARCH, M.D.

(*Read before the New Brunswick Medical Society, July 18, 1883.*)

MR. PRESIDENT AND GENTLEMEN,—It is not my intention in this short paper to bring in review before you the history of this immoveable dressing, nor yet to take one side or the other in the controversy as to who first applied it with peculiar success in a particular class of diseases. Rather, I propose to give you an account of my own experience with it, and to state to you, as simply and briefly as may be, the indications for, and the results to be expected from, its use. To this end I purpose answering three questions—When, why and how shall I use it? Before answering these questions directly and particularly, it may be well to consider them generally by means of a few cases taken from my note-book.

CASE I.—In June, 1880, I was called to see F. W., a girl,

\* Wiener Medizinische Wochenschrift, No. 26, Juli 21, 1883; pp. 897, 903.

† Neumann, in referring to the statement of Klebs and other observers who have asserted the transmissibility of the syphilitic virus to the animals, says that they must have made use of the pus of the soft chancre.



aged 14. Her father stated that a month or six weeks previously she had complained of pain in her back and abdomen, which had up to this time been growing continually worse. The pain in the back was not always present. The pain in the abdomen was constant, and was much increased in severity by any sudden movement of the body. For the past two weeks had been unable to move about. Up to the time she first complained of these pains had always been rugged and well. Was unaware that she had ever received any injury to the spine. (I afterwards discovered that early in the spring she had fallen on the ice, and, as her mother thought, "sprained her back.") Pressure upon the nates and shoulders caused her to cry out with pain, while extension of the spine, by means of the hands placed in the axillæ, gave instant relief. Crowding the ribs against the bodies of the 10th, 11th and 12th dorsal vertebrae also increased the pain. The case being clearly one of commencing caries, or Pott's disease of the spine, I constructed a rude suspending apparatus, and the next day put her in a plaster-of-paris jacket, after the manner of Dr. Lewis A. Sayre of New York. After a two hours wait, I found the plaster "set," my little patient free from all pain, able to run about, and apparently as well as ever. At the end of four and a half months I removed the jacket. All traces of the disease were gone, and she was permitted to run about as formerly. From the moment she was suspended until the present there has never been the slightest return of the pain.

CASE II. —On March 1st, 1883, a gentleman called at my office and asked me to prescribe for his daughter, L. F., aged 15. He stated that she had been generally unwell for some time, that she didn't want to move about, and that she complained of pain in the upper part of the abdomen. He thought she had dyspepsia. I prescribed a simple tonic. Three or four days afterwards, happening to meet her father, I enquired how she was. He told me that instead of improving she seemed to be getting worse, and asked me to go and see her. I did so. I found her in bed, face pale and expressive of suffering, pulse not much disturbed, breathing rather shallow and catchy, tongue slightly furred,

slight cough, without expectoration, no appetite. I asked her to get up and stand on the floor a minute. She slid out of bed very carefully indeed. I at once suspected that something was wrong with the back. I dropped my pencil on the floor and asked her to pick it up. Instead of bending forward as you or I would, she got down by flexing the hip, knee and ankle-joints, and, keeping the spine perfectly rigid and erect, reached out, picked up the pencil, and carefully and slowly assumed the erect posture, taking about as long to pick up the pencil as it has taken me to tell you of it. I then placed my hand on her head and suddenly applied pressure. She flinched, and at once complained of severe pain in the epigastric and dorsal regions. Extension of the spine gave instant relief. Upon examination, I found the bodies of the 7th, 8th, 9th and 10th dorsal vertebrae very sensitive to pressure. The spinous process of the 8th was already quite prominent, and there could be no doubt about the diagnosis. She didn't remember that she had ever fallen or received any injury to the spine, but two or three weeks afterwards her mother recalled to mind the fact that some time in December, while at school, she had had her chair pulled from under her by a class-mate, and had remained home two or three days in consequence. On March 10th I put her in a plaster jacket. The plaster set nicely, and I left her perfectly free from pain. The next morning I met her out driving with her father (the first time she had been out of doors in nearly a month), and from that time she made a good recovery of health and spirits. On June 10th, just three months after its application, I removed the jacket for examination. The back was perfectly straight, except that the spinous process of the 8th dorsal vertebra was slightly, and very slightly, prominent. No pain on pressure anywhere. Decided not to reapply jacket for a time at least, and ordered cold bathing and smart friction. There has been no return of the pain.

CASE III.—In October, 1879, was called to see M. H., aged 16. While playing ball he had fallen and sustained a simple fracture of the right femur, middle third. At the time of the accident this right femur was about five inches shorter than the left in consequence of an injury received when an infant. As

I saw the boy immediately after the accident had occurred, I decided to apply the plaster dressing. This I did, taking care to limit the supply of blood to the limb by making pressure upon the femoral artery in Scarpa's triangle by means of a pad of cotton under the bandage. The bandage extended from the condyles to the great trochanter and perineum. After the plaster had become firmly set, the patient was put to bed and kept there a week. He was then allowed to move about on crutches. At the end of six weeks the bandage was removed. Good bony union had taken place, and the patient was discharged from treatment.

It was my fortune to have under my care at one time, early last spring, three gentlemen, all suffering with sprained ankles. Two of these ankles I put in plaster-of-paris, immediately relieving all pain and permitting their respective possessors to pursue their usual avocations. To the other I ordered hot bathing and rest. The bathed and rested ankle confined its owner to the house for two weeks, and after six weeks was still a little lame.

Now for our questions—When, why and how shall I use this immovable dressing?—questions which I think every intelligent man will want answered before using this or any other remedy, be it new or old. And the “why” follows the “when” so closely, and is so intimately associated with it in all knowledge-seeking minds, that it is almost impossible to consider it separately, especially in the short time now at my disposal. So to save time, and express the “maximum of thought in the minimum of words,” we will let this “why” and “when” keep company and so consider them.

It will be seen that all these six cases were the result of violence, either direct or indirect, and, further, that they were the result of violence to joints or bones. It will also be noted that this violence was of such degree, that, balked by the constant work and strain to which the damaged parts were subjected, nature alone would either fail or be long in effecting anything like a cure, and as it is plainly our business—our duty, if you prefer it—as honest medical and surgical practitioners, to be able and ready intelligently to assist nature in just such a strait

as this, it behooves us to ask what will this remedy do towards assisting nature out of her difficulty.

If properly applied, it will, in the class of cases we have been considering, absolutely prevent motion, it will separate and keep apart damaged or diseased surfaces, and it will bear the weight and strain that would otherwise be forced on a part unable to bear it ; or, in other words, it will place the diseased or damaged joint or bone in a condition of perfect rest, which is, as we all know, the condition in which repair takes place most rapidly. Now it will be seen that whenever a case of caries of the vertebræ, fracture of a long bone, dislocation or sprain presents itself, and it is evident that the one indication for treatment is to aid nature by placing the affected part absolutely at rest, the plaster-of-paris dressing fills the bill.

But it may be asked, why use plaster-of-paris in preference to any of the other so-called immoveable dressings ? Well, it is more quickly prepared and applied than starch, silicate of sodium, flour and eggs, or any other bandage of that class ; it fits the part to which it is applied perfectly, and in this respect is superior to any wooden or leather splint that can be made ; it is always at hand, cheap, cannot be pulled off in a moment by a crotchety patient, does not shift its position, and wears. Possessing, as it does, all these virtues, is it at all surprising that the question is asked, "How shall I use it ?" I think not, Mr. President. But as I see my paper is already spinning to considerable length, I will be as brief as possible.

To prepare a plaster bandage, procure ordinary cross-bar muslin and freshly-ground plaster-of-paris. Tear your muslin into strips of the desired width ; put into these strips with your hand sufficient dry plaster-of-paris to fill the muslin, and roll as any other bandage. Just before using, stand the bandages on end in a dish containing enough water to cover them. Now, while the air bubbles are rising, let us see that our patient is all ready. The part to which the bandage is to be applied should be covered with some tight-fitting garment perfectly free from seams and wrinkles. If it be a case of Pott's disease, and it is of this especially that I wish to speak, you will place over the

abdomen, under the tight-fitting shirt, a folded towel (which is afterward to be removed), to allow the patient breathing space, and make room for his dinner, and then, to extend the spine, sling the patient by means of bands under the arms, occiput and chin. (For a description of a good slinging apparatus, see Sayre's Orthopædic Surgery, p. 376.) When the air has ceased issuing from the bandages they are ready for use, and you should proceed to apply them as you would any other bandage, taking care to make a good, smooth fit, and to distribute your pressure evenly. The quantity of bandage to be used will, of course, depend on the weight of your patient; only, be sure you apply sufficient to withstand the strain to be put upon it, otherwise your work will be in vain. While applying the bandage, it is well to stop two or three times to moisten the bandage you have already applied, and to rub into it a little dry plaster. This, of course, adds strength. When your bandage is applied, carefully remove your patient from the sling to a bed, rub the bandage well down over the iliac crests, remove the towel, and see that your patient does not move until the plaster is set.

To put up a fracture of a long bone in plaster, it is only necessary to have the bone properly set, and, held by an assistant, to apply your bandage as you would any other. Unless the fracture be near the ends of the bone, it is not, as a rule, advisable to apply the plaster over a joint. In the case of a compound fracture, it will, of course, be necessary to cut a fenestra in the bandage over the wound.

Undoubtedly, the best treatment for sprains, more particularly of the ankle, is, after having bathed the joint well in hot water, to encase it in a strong plaster jacket. This at once relieves the pain, and allows the patient to go about, with only the inconvenience of a stiff joint.

Before bringing my paper to an end, it may not be unseemly in me to offer a word of advice. If you are called to a patient suffering with difficulty of deglutition, cough, pain in the chest or abdomen, flatulence, or dyspepsia, that, on a direct examination of the part complained of, cannot be accounted for, do not fail to make a thorough examination of the spine. Many such

cases, I am sorry to say, are doctored and dosed for dyspepsia, intercostal neuralgia, and the like, that are, in reality, cases of Pott's disease; and this is not discovered until deformity has taken place, the patient become a cripple, and the grand opportunity for successful treatment gone.

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### REPORT OF CASES.

By JNO. Z. CURRIE, M.D., FREDERICTON, Registrar Council Physicians and Surgeons, N.B.

(Read before the New Brunswick Medical Society, July 18, 1883.)

1.—*Lupus non-Exedens*.—M. L., aged 15, came to consult me February 28th, 1883. The family history revealed nothing of importance, excepting that one brother had a sore upon his neck, which was evidently strumous in character. General health of patient had always been good; catamenial discharge had been established about two years. Nine years ago a small pimple appeared on the right side of the face, near the angle of the mouth, became red in color, and was soon succeeded by others in the same situation. Subsequently other spots appeared upon the upper lip, about the left ear, at three different points upon the back, and upon the left hip. These spots have all remained since their first appearance, and have been constantly, but slowly, increasing in size up to the present time, notwithstanding the fact that she has been under treatment at various times for a period amounting in all to eighteen months.

At the time I first saw her there was nothing marked in her appearance, excepting the red patches before referred to. They were similar in appearance, excepting the one upon the left side of the face. They were all more or less circular in form, of a dull red color, elevated, and somewhat gelatinous-looking. The edges were of a more pronounced red color than the centres. In two of the patches the central spaces were smooth, whitish, and of a parchment-like appearance. They were unattended by pain, itching, or discharge of any kind, occasioned no actual inconvenience, but rendered the person's appearance very repulsive. The patch upon the left side of the face differed in some respects from the others. It was oval in form, about one inch and a half

in length and half an inch in width. The whole patch had a shining aspect, was chiefly without elevation, the skin looked dry and shrunken, and the tubercular masses were separate instead of being aggregated. This patch is, in my opinion, *Lupus Erythematodes*, as described by English writers. The patch upon the upper lip covered the whole lip. Here the tubercular masses studded the edges, and were closely aggregated together; small, thin scales covered the tubercles, and small vessels were seen to run over and through them. The patch upon the left side of the face had invaded the whole external ear and the surrounding parts to a distance of about half an inch all around the ear. The edge of this patch was elevated in the same way as the patch upon the lip, and the ear was very much shrunken and shrivelled, the skin over it rough, and the whole ear considerably drawn by cicatrices. Two of the patches upon the back were about the size of the palm of the hand, the other about one-half as large, and the one on the lip about twice as large. They were all oval in form, and similar in appearance to those already described.

Without delaying to indicate the different steps in a differential diagnosis, in view of the history and appearances, I think I am justified in asserting that this is a case of "Lupus non-Exedens," and that the diseased patch upon the right side of the face, and described as differing in some respects from the others, may more properly be denominated "Lupus Erythematodes." The difference in the appearances presented by two of the remaining patches may be explained by the fact that this disease spreads from the boundary edge, and that as the tubercular growth spreads at the circumference, the central spaces undergo resolution, and the skin then assumes a parchment-like aspect. The treatment pursued in this case was as follows: At first, soothing applications locally—lotions composed of the Carbonate of Zinc, Borax, and dilute Hydrocyanic Acid. Later, a lotion composed of 50 per cent. of dilute Sulphurous Acid was used with apparent benefit; and afterward the destruction of the lupoid growth by caustics was resorted to. These were applied directly to the tubercular masses in such a way as to

avoid both the healthy skin on the outside of the diseased patches and the parchment-like skin, which had undergone resolution, at the centre. The general treatment consisted of the use of iron, cod liver oil, and Donovan's solution. This treatment has been pursued about twelve weeks, and the appearance of the patient is much improved. The diseased patches, although still red, are smooth; the central spaces are clear, and in many places almost normal in appearance.

This case was of peculiar interest to me, inasmuch as I had never seen *Lupus Erythematodes* and *Lupus non-Exedens* co-existing in the same individual, although this combination is spoken of as of not very rare occurrence.

2.—*Nævus of the Face treated by Electrolysis.*—H. L., female, aged 8 months, had a prominent nævus on the side of the bridge of the nose. It extended to the internal angle of the eye, upon the lower lid, for a distance of about one-third of the entire length of the lid, and down upon the face about three-quarters of an inch. It was irregular in outline, one arm extending farther down upon the cheek, and the other upon the side of the nose. A small, red point had appeared in this situation a few weeks after birth, and had constantly enlarged both in outline and in prominence. This was evidently a nævus, in which the skin, subcutaneous cellular tissue, arteries, veins and lymphatics were involved. About four weeks before this case came under my observation, an effort had been made to remove the mass by means of strong caustics. The result was great swelling of that side of the face and eyelids, accompanied by considerable pain and constitutional disturbance, and, later, greater deformity and an increase in the size of the nævoid growth. Although a nævus is frequently of very little importance, yet, when seated upon the face, and especially in the case of females, its removal in such a way as to leave as little deformity as possible becomes a matter of the greatest importance. In this case the deformity was very considerable, and rapidly becoming more so, hence the necessity for immediate interference. The question, then, to be determined was—By what means this deformity could be most effectually removed with



the least danger to the patient and leave the least evidence of having existed? Tying would have been difficult to accomplish, and not likely to have been attended with good results; the actual cautery would have accomplished too much, probably producing ectropion, as the growth was evidently spreading between the skin and tarsal cartilages, while there was already evidence of the effect of caustics upon it, and injections are generally unsatisfactory. All treatment except that of partial destruction seemed inadvisable. It was hoped that by electrolysis, centres of slough might be produced through the whole thickness, and from these coagulation and contraction would spread throughout the entire growth in the manner described by H. H. Hutton of St. Thomas's Hospital. Hoping to avoid an external slough, a battery composed of but six cells was used. The first application was made on March 20th, 1883. The result of this application was very satisfactory. There was no hemorrhage, the needles leaving behind tunnels of destroyed tissue. No local irritation of importance nor constitutional disturbance followed. After a few days a very sensible improvement was apparent. The irregularities of the mass were obliterated, and the whole mass diminished in size. Very soon the centre of the tumor began to distend again, when the child cried, and a second application was made on the 6th of April. At this time more was accomplished than was intended. Considerable tumefaction resulted, followed by an external slough at the edge of the mass. The swelling, however, after one or two weeks, became reduced, and the naevus was found to be still further reduced in size. Two subsequent applications effected its complete removal. Considerable redness of the part remained for some time, but is fast disappearing, and the skin is assuming its natural appearance.

The principal objection to this treatment is the liability to recurrence after apparent removal, frequently rendering a repetition of the treatment necessary. In this case, although the result was not obtained wholly in the way anticipated, an external slough having followed the second application, yet the result is, upon the whole, satisfactory. In my opinion, this mode of treatment has accomplished more, with less discomfort to the

patient, and has left less deformity than could legitimately have been expected from any other course of procedure.

## QUARTERLY RETROSPECT OF SURGERY.

PREPARED BY FRANCIS J. SHEPHERD, M.D., C.M., M.R.C.S., ENG.

Surgeon to the Montreal General Hospital; Professor of Anatomy and Lecturer on Operative and Minor Surgery, McGill University.

*Suture of Nerves after Division.*—All surgeons are agreed as to the propriety of uniting by suture the ends of nerves seen divided in recent wounds, but the suture of divided nerves long after the original wound has healed has not yet been extensively practised. Many cases of successful suture of divided nerves have lately been reported in the various medical journals. Mr. T. Holmes (*Lancet*, June 16, 1883) reports a case of suture of the musculo-spiral nerve five months after its division. The scar of the wound which severed the nerve was on the outer side of the back of the right elbow. Sensation was completely lost in right hand and forearm for a week after the accident, but partly returned after this time. On admission to hospital, the patient could pronate and supinate his forearm, with the elbow flexed, but could not extend the fingers or wrist in the slightest degree, and supination was impossible in the extended position of the forearm. The limb was much wasted. No pain was suffered, but there was a tender spot at the extreme end of the scar, just external to the biceps tendon. Operation was determined upon, and on cutting down, the two ends of the nerve were found without much difficulty. The upper end of the nerve seemed to have retracted, and terminated in a bulb the size of a common pea; the other end was somewhat atrophied. The two ends were more than an inch apart; a little of the lower end of nerve was taken off to freshen it, and part of the bulb on the upper end removed. The ends were easily approximated and kept in position by catgut and fine silk sutures. The operation was performed antiseptically, and the wound united by first intention. The operation was performed on March 10th, 1881; by March 15th there was some slight power of extension returning, and a few days later sensation on the back of the hand

was more perfect. The patient then left the hospital, and was not heard of for two years, when he returned to show how completely he had recovered,—sensation was perfect, and there was no difference in the size of the two arms. The patient said that it was about a year before improvement was very obvious to him, then he began to mend rapidly. Mr. Holmes remarks that to Mr. Wheelhouse we are indebted for having brought this operation prominently before the profession; his great success in uniting a sciatic nerve nine months after its division encouraged surgeons to adopt the operation. The uniting of divided nerves in recent wounds has been largely practised, and with much success, but as in these cases the wound very frequently recovers its function without this procedure, it is impossible to say whether the same result would not have followed had no suture been used; but Mr. Holmes asks: “Is the case of old injury and persistent loss of function really different? Will the nerves in these cases recover their functions if left to themselves?” That they do in some cases Mr. Holmes thinks is certain, and gives cases to prove it, but, he remarks, such a favorable issue is highly dubious, especially, as in his own case, where the interval between the divided ends is large and the nervous filaments are included in a large bulb. In such a case, any restoration of its anatomical continuity appears hopeless. Statistics as to the results of secondary suture are not of much value, because many cases are reported too soon after the operation, many cases not being greatly benefited till some time has elapsed after the operation, as in Mr. Holmes’ case. Tillmanns records 13 cases of secondary suture; of these, Mr. Holmes classes 8 as successful, 3 as dubious, and 2 as failures. Mr. Bowlby, in his Jacksonian prize essay on the *Injuries of Nerves*, records 20 cases, 6 only of which were perfectly successful. With regard to the time after the injury at which the operation should be undertaken, Mr. Holmes says we are not yet in a position to lay down certain rules. If the parts are quiet, and the wound completely healed, there can be no motive in deferring the operation. However, Mr. Jessop operated on the ulnar nerve with partial success nine years after its division. Mr.

Holmes lately united the median and ulnar nerves eight days after the accident, and thought it would have been better to have waited till all inflammation in the wound had passed over, or even till the wound had entirely united. Mr. Holmes thinks that in suturing the ends of the divided nerve it matters little whether the suture be passed through the thickness of nerve or not, as long as the sutures have a firm hold. He uses catgut ligatures, reinforced with one or two of fine silk or horse hair. No instance has yet been recorded of any harm from the operation—no tetanus or acute neuritis.

Mr. Herbert W. Page (*Brit. Med. Jour.*, June 23rd, 1883) records a case of secondary suture of the ulnar nerve six months after its division. The nerve was divided near the wrist; after the wound healed, the cicatrix was very painful, and the little and ring fingers became bent and useless, so that patient had to carry his hand in a sling. His general health became seriously affected by the constant pain in the wound and its neighborhood. Sensation was very defective, though not entirely absent. At the patient's request, operation was decided upon, and the separated ends of the nerves found with much difficulty. The upper end of the lower portion was imbedded in thick cicatricial tissue, but was not enlarged; the lower end of the upper portion was swollen to about three times its natural size, and ended in a firm bulbous nodule, which was bound in cicatricial tissue. It was necessary to dissect the upper part of the nerve free for about two inches before the two ends could be brought together. They were joined by three fine catgut sutures passed through both sheath and nerve. The wound healed by first intention, and when he left the hospital, some three weeks after the operation, sensation had decidedly improved, the cicatrix was free from pain, and he had some returning power of extension of the last phalanges of little and ring fingers. In a fortnight after patient had made little progress, so he was placed under the care of Mr. De Watteville for treatment by electricity. Electricity was continued for a year by Mr. De Watteville, and having regained fair use of his hand, he ceased to attend the hospital, but applied the faradic current himself for six months. When last seen he

had been at work for several months, and his hand was as useful as ever. Mr. Page attributes his patient's recovery to the steady and long-continued use of electricity to restore the nutrition of the wasted muscles; but might not the same result have been accomplished without it, as in Mr. Holmes' case.

In another similar case, however, of Mr. Page's, operated on at the same time, the result was not so fortunate, because the patient, being a nervous, hysterical woman, persisted in keeping her hand in a sling, and refused to have electricity applied.

*Treatment of Nævi.*—Mr. Martin Coates, at the recent meeting in Liverpool of the British Medical Association, read a paper on the *Treatment of Nævi* (*Brit. Med. Jour.*, Aug. 18th, 1883). He began by stating that for superficial venous nævi he adopted the late Dr. Marshall Hall's method with complete success. His object was to excite just so much increased action in the growth as to cause deposition of lymph and occlusion of its vessels. A cataract needle was introduced about a line from the circumference of the nævus, and passed from the point of its entrance to the opposite extreme edge of the growth, keeping it, in all its course, as near as possible to the surface. The needle was then withdrawn almost to its point of entrance, and pushed again through the nævus at about one-sixteenth of an inch from the line of the first puncture, and so on until the lines of the puncture took a fan shape. It is desirable to keep the needle as close as possible to the surface, though, should it penetrate the thin covering of the growth, a piece of adhesive plaster arrests the bleeding immediately. A small white spot soon makes its appearance in the centre of the growth; this gradually spreads and there is left in a few months a spot perfectly smooth, and whiter than the surrounding skin. One operation has invariably succeeded with Mr. Coates in superficial venous nævi.

The *bright scarlet or arterial nævus*, whether it appears as a small bright spot, or as a patch measuring two inches in diameter, or, again, as one or two minute arterial branches, requires, remarks Mr. Coates, a more pronounced treatment, based, however, on the same principle—stimulation, not destruction of tissue. In his first case, the author punctured the nævus with

a bleeding lancet, and into the puncture passed a small point of nitrate of silver, holding it there a few moments. The nævus was cured, and no scar was left. Since then he has used a large needle with a blunt flat end. This he introduces with the flat end at right angles to the skin, and tears through each vessel. Ecchymosis takes place, which is soon absorbed, and the nævus is cured.

When the nævus, venous or arterial, exceeds a thickness of one-sixteenth of an inch, the needle operation is not applicable. In these cases, Mr. Coates injects undiluted tincture of iodine. The operation is very simple. Wood's syringe, with a very small needle, is all that is required. Sufficient tincture of iodine to fill the nævus having been drawn into the syringe, the needle is introduced through the skin at about a line from the circumference of the nævus, and passed to its centre; the piston is propelled slowly home, so as to force the tincture into every part of the growth. This is facilitated by moving the point of the needle into every part of the nævus. The needle is then withdrawn, and pressure made on the puncture for a few seconds, and then the operation is complete. Mr. Coates has practised this treatment many times, with complete success, since 1861. One injection generally succeeds.

At the same meeting, Mr. Edmund Owen also read a paper *On the Treatment of Large Nævi*. The nævi referred to are not of that variety, says Mr. Owen, which may be readily or effectually obliterated by the use of ethylate of sodium or nitric acid; they are vascular tumors, varying in size from a dried raisin to a ripe fig, and which, situated in and beneath the skin or mucous membrane, are steadily growing. After alluding disparagingly to the treatment by ligatures and setons, Mr. Owen goes on to say that in his experience all the demands are supplied and the objections avoided by the treatment of large nævi by that useful instrument, the thermo-cautery of Paquelin. The larger the nævi, the larger the heated point needed. Having heated the point of the cautery to dull redness, the blade is thrust through the skin in as many places as may be considered necessary, and the point directed to all regions of the vascular

mass, central, deep and peripheral; each district must be searched out and invaded. The skin punctures should be made well within the limits of the tumor, as the effects of the cautery necessarily extend beyond the limits of the tissues actually traversed. By slow and cautious withdrawal of the blade, the small eschars are permitted to remain, sealing the wounded vessels and preventing the loss of any blood. A few black sinuses, surrounded by a ring of skin which has been reddened by the scorching, remain after the operation, and the tumor is found smaller and firm from coagulation having taken place throughout the entire mass. Oiled lint is used as a dressing. For the next few days the part looks angry and swollen, and is very painful; then a slight amount of sloughing takes place, and in a few days more some small, clean ulcers are seen. The ulcers heal, and cicatricial contraction taking place throughout the entire mass, determines the process of shrivelling. The integument only perishes where wounded. Mr. Owen has been most successful by this mode of treatment with those tumors occupying the entire substance of the lip.

In the discussion which followed the reading of these papers, Mr. Thomas Darby said he had seen "raspberry marks" successfully treated, without leaving a scar, by hypodermic injections of absolute alcohol.

Mr. Silcock often practised an old and now almost obsolete method of treatment in the case of capillary nævi, viz., painting them with collodion; a natural cure was thus often brought about. Mr. F. J. Bailey said that smaller nævi had been very successfully treated by vaccination. Since the introduction of ethylate of sodium, he had used it rather extensively in the smaller nævi with great success; in some of the larger nævi, he had seen good results follow the use of the perchloride of iron.

*Transplantation of Muscle in Man.*—Helferich (*Archiv f. Klin. Chirurgie*, B. XXVIII, p. 562) reports a case in which, as a result of the removal of a fibro-sarcoma from the arm of a woman aged 36, the whole upper half of the biceps, with the exception of a thin strand at its outer part, was extirpated. Into

the cavity which was left he promptly introduced a large fragment of the biceps from the leg of a dog. The cut surfaces were carefully brought together with sutures, as little injury as possible being done to the parts. The transplanted muscle was much more voluminous than the original portion, and was, long after the operation, distinctly perceptible to the touch. Electric experiments, instituted about three months after the operation, showed that the biceps reacted naturally to both kinds of current. The high point of stimulation, situated at the point of section of the musculo-cutaneous nerve, was, however, absent. The movements at the elbow-joint were almost normal. (*Lancet*, July 8, '83.)

*New Method of Reduction in Dislocation at the Elbow Joint.*

—Mr. J. E. Kelly, whose new methods of reducing dislocation of the shoulder and hip, were described in the Quarterly Retrospect of December last, has, in the *Dublin Jour. of Med. Science* (July, '83), described a new method of reduction of dislocation at the elbow joint. It is as follows: The operator sits on the corner of a table, at the end of which the patient is placed upon a chair. The injured limb is drawn under the surgeon's proximal thigh, which rests close to the joint, on the anterior surface of the humerus, while the olecranon is accurately placed on the anterior surface of the lower third of the distal femur, and the proximal foot is "hitched" behind the other leg, which is flexed firmly against the frame of the table. In order to obtain the most favorable fulcrum, the surgeon fixes his proximal elbow against the antero-internal aspect of his corresponding thigh, and, grasping the wrist of the patient with both his hands, reduction is effected by the simultaneous and co-operative action of the muscles of the arms, back and thighs. Fixation and counter-extension are supplied by the powerful thighs of the operator, and coaptation is effected, with great nicety, by the backward pressure of the femur against the anterior surface of the humerus, while the distal femur forces the olecranon forwards. . . . Extension is supplied by the muscles of the other extremities acting round the fixed point provided by the elbow of the surgeon, and, when his body is thrown backwards,



additional force is derived from the muscles of the back, the glutæi, and the other extensors of the thighs. (The description is much more easily understood when reference is made to the excellent illustrations accompanying the article.)

*The Treatment of Hordeolum.*—Mr. Fitzpatrick gives his recent experiences in the treatment of hordeolum (*Lancet*, April, 1883), or the common styé, during the time he was in Egypt. The plan of treatment adopted is to dispense with hot fomentations, &c., and to apply locally tincture of iodine to the lids, care being taken to keep them apart till dry. A few applications in the 24 hours is often sufficient to arrest the development of the styé. (*Practitioner*, Aug., 1883.) I have found that the application of spirits of wine to the lid, when a styé is commencing, often arrests its progress, probably by causing contraction of the blood-vessels, and so driving on the stagnated corpuscles. The alcohol should be applied with a camel's hair pencil every few minutes for an hour or so. The application is quite pleasant, and will not disfigure, as the iodine application is sure to do.

*Anæsthetics.*—Deaths occurring during and after the administration of anæsthetics are reported from time to time in medical journals. The exact conditions which lead to a fatal result are not well understood, perfectly healthy individuals often rapidly succumbing, whilst others, who are in a very bad general condition, escape. The dose of the anæsthetic seems to have little to do with the fatal result, as many deaths occur at the very commencement of the administration, before more than a few drops have been inhaled. We have yet much to learn about the administration of anæsthetics. So far, I think, without doubt, ether has proved to be the safest, yet chloroform still holds its place from the ease with which it is administered and the rapidity with which it produces anæsthesia. The mode of administration is yet disputed point. Some say to give ether rapidly and safely, keep out air, and, when giving chloroform allow patient to inhale plenty of air; others, again, say that safe administration lies in giving plenty of air with ether and none with chloroform. A valuable paper by Dr. R. Marcus Gunn, in the *British Medical Journal* of July 21st, 1883, on

“ Statistics of Anæsthetics in relation to After-sickness and the Death-rate,” will assist us in arriving at more correct conclusions on these points. Dr. Gunn, whilst House Surgeon at the Royal Ophthalmic Hospital, Moorfields, administered anæsthetics altogether 4,188 times. In 45 per cent. (1,902) of the cases there was sickness, and from the tables he gives it seems that females had a much greater tendency to sickness than males. The liability to sickness is at its maximum about the commencement of puberty, and decreases gradually towards each end of life. Dr. Gunn considers age the most important factor in relation to after-sickness. Chloroform was used for children under 3 and for adults over 60 ; between these ages, ether, a mixture of ether and chloroform vapour, or a mixture of absolute alcohol, chloroform and ether (in proportions respectively of one, two and three) was used. The author’s impression is that, ages being equal, the tendency to after-sickness is about the same with ether as chloroform. Ether-sickness seldom lasts long after the stomach is emptied ; chloroform-sickness often continues for several hours and leads to great exhaustion. With regard to the influence of food, Dr. Gunn comes to the following conclusions : 1. Too long a fast is a disadvantage, especially in the very young and aged. 2. Speaking generally, the last meal should be given about four hours before the operation.

The weather has an influence on after-sickness ; on certain days nearly every case was sick, while on other days sickness was entirely absent. There was less sickness when the wind was easterly. The highest percentage occurred in January ; the lowest in March. Only one death occurred, during the administration of a mixture of ether and chloroform. The patient was a stout woman, aged 46. At the necropsy, the heart was found to be fatty. The author thinks, in this case, death was due to shock, as the anæsthetic had only been administered for one minute when the pulse failed and the respirations became shallow. Another case died after removal home. Patient was a fair, delicate-looking girl, aged 8, who recovered from the anæsthetic in the usual way, and spoke to the nurse, but remained pale, and began to be sick an hour after the operation. She was taken

home by her friends, and never spoke after leaving hospital, but died that evening. I should certainly attribute the death to the anæsthetic, because, if it had not been administered, the girl no doubt would not have died; but the author is doubtful about the case, as no autopsy was held.

Ether was introduced into Moorfields about the beginning of 1874, and from that date up to the present time anæsthetics had been administered 13,000 times, with only one death (the case of the woman described above) that can be fairly attributed to the anæsthetics. Dr. Gunn says that, next to carelessness, nothing is more calculated to increase the death-rate than widespread dread of its dangers. Mr. Roger Williams gives the death-rate as 1 in 350 inhalations. This the author thinks very exceptional, and he does not believe the majority of fatal cases are hushed up. Alarming symptoms will, he says, unavoidably occur occasionally during anæsthesia; but the greater the proportion of such cases to the actual number of deaths, the smaller the *real* danger. The anæsthetic must not be blamed for all cases of death. Chloroform vapour, without the admixture of air, will paralyze a strong heart, not to mention a fatty one; the shock of a severe operation will kill without an anæsthetic. A moribund patient may die of mere shock of removal to the theatre and dread of the operation, nor is the risk removed till perfect anæsthesia is produced.

Dr. Gunn concludes by stating that he believes Mr. Roger Williams' statistics give a much too high death-rate, as many of his fatal cases were not directly due to the anæsthetic. He believes that a mortality of one (or at least two) in 13,000 cases, as at Moorfields, corresponds more nearly with general experience. He states that his paper has been principally written "to prevent an unwarranted popular dread of anæsthetics—a dread, I am convinced, in itself most dangerous."

*Treatment of Warts and Condylomata by Carbolic Acid.*—M. Jullien has described, in the *Annales de Dermatologie*, the treatment used by Tommaso de Amicis and himself in cases of warts and condylomata. It consists in repeated cauterizations by means of pure carbolic acid, and is best adapted to large

sessile growths or to fungating cauliflower-like vegetations. The method of application is very simple. Crystals of pure carbolic acid are kept in a small bottle; the warts having been washed, the bottle is warmed in a flame or in nearly boiling water, and the crystals touching the glass melt. The fluid is applied to the whole surface of the warts with a brush or cotton wool. The warts soon assume a shiny, white appearance. The white layer soon falls off, and next day the operation can be repeated. Pure carbolic acid causes much less pain than chromic or acetic acid. The last cauterizations are always more painful than the first. In a case of vegetations on the glans and prepuce, the cure was complete after two applications.—(*Brit. Med. Jour.*, Aug. '83.)

*Treatment of Erysipelas of the Face.*—Roth has revived Wilkinson's old method of treating erysipelas, and Unna (*Monatsch. f. Prak. Derm.*) reports a case so treated. It consists simply in giving every two hours a tablespoonful of a mixture of eight parts of carbonate of ammonia with 210 parts of any convenient menstruum. Unna's case was very severe, with high fever, sleeplessness, and delirium. In 24 hours the affection was under control and amendment had occurred, and in three days the patient was well. No external applications were employed.—(*Quoted in Jour. Cut. and Ven. Dis.*, Aug., '83.)

*Treatment of Floating Kidney by Fixation.*—Dr. David Newman of Glasgow performed the above operation for the first time in Great Britain. The method described (*Brit. Med. Journal*, April, 1883) is the usual one, viz., exposing the kidney by a vertical incision in the right loin, just external to outer edge of the quadratus lumborum, and extending from the lowest rib to the crest of the ilium, opening the capsule of the kidney and stitching it to the sides of the wound, and two catgut sutures in this case were passed through the cortex of the kidney. The external wound was closed by button sutures. The patient was entirely relieved, and soon recovered from the effects of the operation. Dr. Weir, of the New York Hospital, has lately (*New York Med. Journal*) reported a successful case.

*Ligature of the Innominate Artery for Subclavian Aneurism.*  
—The operation of ligature of the innominate, which was lately

performed by Mr. Wm. Thomson of Dublin, at the time excited great interest and a hope that the case would turn out favorably, but, unfortunately, hemorrhage occurred on the 30th and 39th days, and the patient died on the 42nd. The account of the case given by Mr. Thomson in his pamphlet is most interesting. The hemorrhage did not occur from the point of ligature, but from an ulceration in the artery a quarter of an inch away. The coats of the artery were not at all divided by the ligature, and though the ligature had entirely disappeared, the artery was quite occluded at the point of ligature.

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### Reviews and Notices of Books.

**The Essentials of Pathology.**—By D. TOD. GILMAN, Professor of Physiology in the Starling Medical College, Columbus, Ohio. 296 pages and 47 cuts. Philadelphia: P. Blakiston, Son & Co. 1883.

This is an excellent little work, which quite fulfils the objects of the author, viz., “to unfold to the beginner the fundamentals of pathology in a plain, practical way.” It is well up to date, and the main essentials of pathology are detailed in a clear and instructive manner. The woodcuts are old friends, as a rule good, but not numerous enough. Though not in any way equal to Green’s Manual, it will prove a very useful work to any student or practitioner who may wish to get a *resumé* of recent pathology.

**A History of Tuberculosis.**—By ERIC E. SATTLER, M.D. Robert Clarke & Co., Cincinnati. 1883.

The publishers, for the sake of the reputation of their house, should have made Dr. Sattler alter the title of this work to “Spina on Tuberculosis,” translated, with additions, &c., by E. E. S. This would have been honest; but it is not right for any one to take another man’s work, translate it and make some additions, and then issue a volume, as this one has been issued, with *Tuberculosis, Sattler*, on the cover. True, on the title page it is stated that the work is in the main a translation of Spina’s

recent *brochure*, but this was not enough, and when we casually picked up the book we recognized *Spina* in the text before we had noticed his name on the title page. We have already referred to Spina's position in the tubercle-bacillus dispute. This work contains an admirable history of the tubercle doctrine and a full account of Koch's investigations, as well as those of subsequent observers, and is the most extensive monograph on the subject which has been published. We welcome it in English dress, and commend it to our readers.

**A New School Physiology.**—By RICHARD J. DUNGLISON, A.M., M.D. 314 pages and 117 engravings. Philadelphia: Porter and Coates.

The best popular physiology with which we are acquainted, admirably illustrated, and in every way adapted for school use. We should like to hear of this work as a text-book in every High School throughout the country.

### Books and Pamphlets Received.

**ANATOMY, DESCRIPTIVE AND SURGICAL.** By Henry Gray, F.R.S. With an introduction on General Anatomy and Development by T. Holmes, M.A., Cantab. The drawings by H. V. Carter, M.D., with additional drawings in later editions. Edited by T. Pickering Pick. A new American from the tenth English edition, to which is added "Landmarks, Medical and Surgical," by Luther Holden, F.R.C.S., with additions by William W. Keen, M.D. Philadelphia: Henry C. Lea's Son & Co. Montreal: Dawson Bros.

**THE INTERNATIONAL ENCYCLOPEDIA OF SURGERY.** A Systematic Treatise on the Theory and Practice of Surgery. By authors of various nations. Edited by John Ashurst, Jr., M.D. Illustrated with chromo-lithographs and woodcuts. In six volumes. Vol. III. New York: Wm. Wood & Co.

**TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA** at its Thirty-fourth Annual Session. Vol. XV. Published by the Society.

**ILLUSTRATED MEDICINE AND SURGERY.** Edited by George Henry Fox and Fred. R. Sturgis. Vol. II. No. 3. New York: E. B. Treat.

### Society Proceedings.

#### MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

*Stated Meeting, June 14th, 1883.*

R. A., KENNEDY, M.D., PRESIDENT, IN THE CHAIR.

*Hodgkin's Disease.*—Dr. Osler exhibited this patient, a farmer, large and well-built, 24 years of age, with good family history.

Enlargement of glands began 18 months ago. The cervical and axillary very large; inguinal slightly enlarged, but not the thoracic nor abdominal. Not markedly cachectic, but looks much older than 24 years. Says he is much darker than before disease began. Not specially anæmic. There is one-fifth of a reduction of red blood corpuscles, one colorless to 150 red. Left arm is œdematous from pressure of mass in axilla. One gland over left clavicle necrosed. Has continuous pyrexia, very little pain, slight cough. Has had an itchy papular eruption for past year. This known to be sometimes present in this disease, Dr. Osler said it was a typical case, and was the third he had seen this spring. Is giving him arsenic; has seen glands lessen with this remedy in two cases.

Dr. Osler shewed specimens of *Hydatids* under the microscope. They were from a patient of Dr. MacLaren's, of Paisley, who had been passing them for some time in his urine. Dr. Osler had tabulated sixty-three cases, in none of which were they found in the kidney. It is possible these may have come from Peritoneum and into bladder.

Dr. Osler showed a *Lympho-sarcomatous growth of Bronchial Glands* in a patient under Dr. Wilkins's care. It involved portions of both lungs and pleuræ. Secondary growths were also found in pancreas and on membranes of spinal cord. The latter was the cause of death, its rapid growth and pressure on cord producing acute myelitis.

DR. WILKINS stated that patient had been brought into hospital about eight or ten days previous to his death, in a completely paraplegic state; he had been so for ten days. For about five or six weeks previous to the setting in of the paraplegia, he had been complaining of "rheumatic" pains in his shoulders, and also in his legs, but had been quite well up to that time. The paraplegia with bladder trouble set in within twenty-four hours of his first noticing any loss of power in limbs. On entering hospital there was complete anæsthesia and paraplegia extending up to level of sixth costal cartilage. He had typical bullæ on internal surfaces of both knees where they had been in contact, on buttocks and on one external

malleolus, points to early irritative lesion of posterior roots on cornua. Muscles responded to a strong faradic current when he entered hospital; but this faradic excitability had quite disappeared the day previous to death. The only objective symptom pointing to a lung lesion, was the presence of bronchial râles.

Dr. Osler exhibited a *large Amyloid Liver* from a patient who died of phthisis under Dr. Wilkins care.

DR. WILKINS stated that the case had been one of several years standing, during all of which time patient had more or less profuse expectoration; lower margin of liver extended to crest of ilium, and about one inch below umbilicus. No unusual symptom was associated with the case, until about a fortnight previous to his death, when jaundice made its appearance, the color gradually becoming very deep. Dr. Wilkins had considered the occurrence of jaundice with amyloid liver as of very rare occurrence, and in this case had supposed it to be due to the pressure of enlarged lymphatics on bile ducts, the cause usually assigned for this condition. At *post mortem* glands were found to be only slightly enlarged, and ducts pervious, and as he had not yet made a microscopical examination, he could not give any positive reasons for the jaundice.

Dr. Wilkins exhibited a number of microscopical sections made from different regions of spinal cord of a patient who died of myelitis, in which the microscopic as well as the physical signs shewed the posterior cornua to have been less affected than the anterior. There had been complete loss of power of both legs, with paresis of muscles of arms, hyperæsthesia; a bed sore making its appearance only after the sixth week of illness. Under the microscope, some of the motor ganglion cells could be seen swollen to more than twice the normal size; others with one or more large vacuoles, which gave the appearance of the ganglion being filled with fat cells, but their reaction with prussic acid shewed they were not fat; other motor ganglion cells existed only in a shrunken condition, some with these processes quite disappeared. In all the sections leucocytes could be plainly seen scattered through the field. The sections



were all double stained—some with sulph-indigotate of soda and carmine ; others with picro-carmine and logwood.

*Uterine Fibroid.*—Dr. Gardner exhibited fragments of a uterine fibroid removed by him assisted by Dr. Ross, whose patient she was. Patient had been blanched with hæmorrhages ; on examination uterus was found enlarged. Dilatation by means of tents revealed a sub-mucous fibroid, size of an egg. Repeated applications of strong solution of iodine did not stop the hæmorrhages. Again dilated and separated the tumor by Thomas' scoop and a pair of scissors. The operation was very difficult as the tumour was sessile. Iodoform was used as a dressing, it kept everything sweet. No hæmorrhage since removal, now three weeks.

Dr. Ross said that fourteen months ago she began to have excessive flowing, gradually grew worse, lost much each month. After a time an examination was allowed, when he found the above condition to be present. It took two and a half hours to remove the tumor. Her condition in spite of having a small growth, size of a marble in right cornua, is very satisfactory.

Dr. ALLOWAY asked if Dr. Gardner ever used Emmet's traction operation for uterine fibroids, which in time produced a pedicle.

Dr. GARDNER believed Emmet's operations to be very good ; but not suitable for this case as the base of the tumor was so large, being something like a hump on the uterine wall.

*Tracheotomy.*—Dr. ALLOWAY read a paper embodying the history of 6 cases of tracheotomy in children, 4 of which ended in recovery. The ages ranged from 2 to 7 years. Three were males and three females. Of the recoveries two were females and two males ; of deaths, one male and one female. The ages of those which recovered were two, three, three and seven years, respectively. In two there were diphtheritic patches recognized in the throat ; the remaining four were membranous croup. Of recoveries, two were subject of diphtheria and two membranous croup. In the successful cases the tube was removed on the seventh, eleventh, thirteenth and fourteenth day. Steam and carbolized dressing were used in all ; the steam was not

generated directly in the room, but obtained from boiling water kept constantly supplied to large flat tin vessels on the floor of the room. The operation in all was performed early.

DR. BELL said he had recently performed tracheotomy four times for diphtheria. All were bad cases in young children, and had to be done in a hurry, as children were cyanosed. First case, 3 years old; opened below thyroid; lived about forty-eight hours; membrane went below wound; no *post mortem*. Second case, 3½ years; within forty-eight hours the wound was covered with membrane. Applied glycerine and carbolic acid; died fourth day; *post mortem* shewed membrane in small bronchii. Third case was brother to last, no membrane seen, but great relief followed opening trachea; took nourishment well for thirty-six hours; tough secretion now formed, and forty-eight hours after operation was almost suffocated by it; was relieved by passing feathers down and removing secretion, this gave great comfort, and had to be repeated frequently; died after four days; *post mortem*; no membrane in trachea, but died of lobular pneumonia from pushing down dry secretion with feather; temperature ran high. Fourth case; membrane in trachea was relieved by operation, but gradually sank; died from infection seventeen hours after operation. Did not steam with any of these cases.

DR. BELL read following extracts from a paper on this subject by Dr. H. Linder:—

Out of 106 cases of tracheotomy for croup and diphtheria 63 died and 38 recovered. Of 79 cases in which obstruction of air passages was the prominent morbid condition, 44 died. The chances are slight under two years. Operate when retraction of chest becomes a prominent sign. Superior operation done in all but 5 cases. Prefers it on account of thymus gland in young children. He recommends chloroform in all cases except where intense asphyxia. When the signs of great general infection were marked, that is in 22 cases, all died. Uses steam, thinks it useful in lessening the dry and firm secretion at end of tube; but thinks it produces pneumonia sometimes, and increases danger in that way. Recommends

apomorphia in large doses. It increases watery secretion from bronchi and separation of membrane. Next to general infection thinks that pneumonia is chief difficulty and is indicated by sudden rise of temperature.

DR. BLACKADER said he believed steam to be very useful in these cases. Lately he had seen its good effects in a patient of his suffering from laryngeal diphtheria on whom Dr. Roddick had operated. One day the steam (which was directed under a tent over the bed) was discontinued by the attendant, when the child became alarmingly worse, but after being renewed she breathed easier and ended in complete recovery, although was paralyzed for a time.

DR. FENWICK advocated use of steam. Although last year had two cases of tracheotomy for diphtheria where, owing to lack of accommodation, steam could not be used and yet both recovered.

DR. RODDICK had performed the operation thirty odd times. He said his rules were: 1st. To dissuade from operating if glands engaged, for the patients are almost sure to die of septicæmia, and the operation hastens the fatal issue. 2nd. Has given up the idea of operating with a single assistant; must have two, one to give anæsthetic and one to assist the operator. Believes ether better than chloroform. Never saw ether act badly. Made a rule now of doing the low operation, raising the thyroid is easy and simple, the lower part of isthmus being loose on the trachea. Uses no haste in putting in tube, has known the tube to be put to one side and be the cause of death. Believed Trousseau's old double tube with or without moveable shield to be the best; always uses steam, thought it very necessary.

Drs. Alloway, Roddick and Bell had all seen cases where there was much difficulty in permanently removing the tube, owing to suffocating symptoms coming on, due to spasm and also exuberant granulations in the trachea, which stand out and lessen calibre when the pressure of the tube is removed.

DR. MAJOR considered that a record of tracheotomies to be of any statistical value, required to be divided as to the condition for the relief which the operations were undertaken. In

his experience opening the air passage in diphtheria has proved eminently unsatisfactory—in so far as life-saving power was concerned—whereas for the relief of other conditions it had been universally successful—in any case the more early the tracheotomy the better. He would also call attention to the neglect of laryngoscopic examinations. He thought, when none was had, that both patient and practitioner were at a great disadvantage; as at least we might determine the character of the obstruction; whether œdema, membrane, (diphtheritic or croupous) or as he had even seen papillomatous growths mistaken for croup, and an operation so long delayed that a fatal termination from congestion of the lungs was the result. And we should also know whether the membrane extended below the point of our proposed incision, a matter of some moment in deciding upon operative procedure.

## CANADA MEDICAL ASSOCIATION.

### OPENING OF THE SESSION, SEPT. 5TH.

At 10.20 o'clock Dr. Mullin, of Hamilton, the newly elected President, was introduced to the Association. He thanked the Association for the honor they had done him, and hoped the meeting would be highly successful.

DR. SULLIVAN intimated that the local committee had made all necessary arrangements.

MAYOR LIVINGSTON and DR. SULLIVAN then, in humorous and eloquent speeches, welcomed the Association.

DR. WILLIAMSON, on behalf of the Queen's University, also addressed the Association.

A number of Past Presidents and Vice-Presidents were asked to take seats on the platform.

DR. MULLIN thanked the speakers for the hearty reception accorded to the Association. He felt that their visit to Kingston would be much appreciated. In no place had they been more heartily received.

DR. E. ROBILLARD, of Montreal, Treasurer, being absent, Dr. Sheard of Toronto was nominated in his place.

The following medical visitors were present: Dr. Hurd,

Pontiac, Mich. ; Dr. V. O. Walker, Detroit, delegate from the American Medical Association ; Dr. D. McLean, Ann Arbor.

The following members were in attendance : Dr. Mullin, Hamilton, President ; Dr. Osler, Montreal, Secretary ; Dr. Dupuis, Kingston ; Dr. T. M. Fenwick, Kingston ; Dr. W. H. Henderson, Kingston ; Dr. Canniff, Toronto ; Dr. Worthington, Trenton ; Dr. Bray, Chatham ; Dr. Oliver, Kingston ; Dr. Bottsford, St. John ; Dr. Sullivan, Kingston ; Dr. Sloane, Blythe ; Dr. Campbell, Seaforth ; Dr. Bingham, Seaforth ; Dr. K. N. Fenwick, Kingston ; Dr. Reeve, Toronto ; Dr. Phelan, Kingston ; Dr. Graham, Toronto ; Dr. Tye, Chatham ; Dr. Proudfoot, Montreal ; Dr. Yeomans, Mount Forrest ; Dr. Mallock, Hamilton ; Dr. Irwin, Kingston ; Dr. Sweetland, Ottawa ; Mr. Metcalfe, Kingston ; Dr. Fenwick, Montreal ; Dr. Gardner, Montreal ; Dr. LaRocque, Montreal ; Dr. Playter, Toronto ; Dr. Small, Ottawa ; Dr. Oldwright, Toronto ; Dr. Saunders, Kingston ; Dr. Pickup, Brockville ; Dr. Roddick, Montreal ; Dr. Dickson, Wolfe Island ; Dr. Neilson, Kingston ; Drs. J. Bell, J. A. McDonald, W. Hingston, Major and Buller, Montreal ; Dr. Tobin, Halifax ; Drs. Burnham and Sheard, Toronto ; Dr. Dorland, Milwaukee ; Dr. Grant, Ottawa ; Dr. McCammon, Kingston ; and others.

A letter of regret was read from Dr. Brodie, of Detroit, a delegate from the American Medical Association.

DR. CANNIFF (Toronto), Chairman of Committee on Sanitary and Vital Statistics, reported that there had been no meeting of the committee ; that its place had been usurped by a committee of gentlemen who met at Ottawa during the past winter.

Drs. Playter and LaRoque explained their connection with that meeting.

DR. LAROCQUE (Montreal), Chairman, read the report of the Committee on Climatology and Public Health. The report referred at great length to the history of what has already been done in this country. He alluded to the Government grant, and advocated its expenditure in the collection of mortuary statistics. He recommended a central bureau with local boards in all the larger cities and towns for the collection of statistics.

DR. YEOMANS said in Hamilton the physician notifies the teachers of schools of any cases of infectious diseases. This lessens the mortality, while it increases the attendance.

A vote of thanks was passed to Dr. LaRoque for his very complete report.

The following were appointed as Nominating Committee: Drs. Botsford, G. E. Fenwick, Grant, Graham, Rodger, Brady, Worthington, Malloch, Oliver, Tye, Sweetland, Canniff, Oldwright and Yeomans.

The meeting then adjourned for lunch.

#### GENERAL MEETING.

The Association met at 2 p.m., Dr. Tye (Hamilton), Vice-President, in the chair.

The PRESIDENT (Dr. Mullin) returned thanks for the honor conferred upon him. After making a brief allusion to the death of Dr. David of Montreal, late secretary of the Association, whom he described as a man of the strictest integrity, of the highest sense of honor, and an example to young men, he said that each of the medical societies had its sphere of usefulness. The county, city and provincial associations could do work that would advance the interest and knowledge of the members of the profession, but the highest and best results are to be attained by the Association gathering together each year the members of the profession from all parts of the Dominion, who, in the discussions, would reflect the progress they were able to make. He said he would not attempt even a slight sketch of the work of the past year, but would confine himself to one subject: The agencies through which the decomposition of organic substances was effected. After an able and eloquent address on this subject, he said, in conclusion: Our present knowledge is in accordance with what was long since found true, that in contagious fevers and tubercular diseases our efforts must depend to a great extent on our success in teaching the public to rely less upon antidotes and more upon those means which tend to build up strong frames capable of withstanding the agencies causing disease.

Dr. Graham of Toronto was nominated chairman of the Medical Section, and Dr. Tye of Hamilton of the Surgical Section. The meeting then divided into sections.

#### MEDICAL SECTION.

The section met at 2.30 p.m., Dr. Graham in the chair.

DR. PLAYTER (Toronto) read a paper on "*Diet as a Thera-*

*peptic Agent.*" He said that many cases of illness were due to errors of diet, especially to overfeeding and improper mastication. Observation and recorded cases show that health can be maintained on very much less food than is usually consumed. When illness is due to prolonged excess of food, restricted diet, without medicines, always effects a cure. Persons who habitually eat too much are more liable to attacks of acute diseases, to gout and to rheumatism. Heart disease and tuberculous disease are also caused by excessive feeding. In debilitating diseases, give concentrated and peptonized foods, with iron and phosphates. In functional heart disease, enquire into the diet. He then reported the case of a female, aged 46, unmarried; good family history; always healthy till ten years ago, when she began to suffer from dyspnoea, which has been steadily increasing. When seen, there was urgent dyspnoea, weak pulse, flatulence; color good, no pain, the bowels regular; no sign of valvular disease. Patient used a large quantity of fatty food. Ordered plain, nutritious, solid food, to be eaten slowly, and to be well masticated; very small quantity of fluid. Under this treatment there was rapid improvement, and patient is now nearly well. Another case under his care for years, on eating to excess, suffered from attacks resembling angina pectoris. Cured by restricted diet.

In the discussion which followed, DR. GRANT (Ottawa) urged the importance of combining massage with regulation of diet.

DR. REEVE (Toronto) had frequently seen phlyctenular ophthalmia due to digestive disturbance, caused by eating too much raw fruit, especially in very young children.

DR. GRAHAM said that in skin diseases, diet was a very important part of the treatment. Many forms of skin diseases were due to errors of diet.

DR. SHEARD (Toronto) exhibited a specimen of *gangrenous bowel*. Was called to see the patient, a man aged 37, on the afternoon of the tenth day of illness; found a right inguinal hernia, with symptoms of obstruction. Hernia was reduced without much difficulty, but the symptoms of obstruction continuing, had him removed to hospital. On the following morning, Dr. Burns and himself found a soft, doughy tumor in right iliac region, thought to be impacted fæces. Gave oil and enema without

relief. Symptoms of obstruction becoming very urgent, opened the abdomen and found the tumor to be an invagination of the ilium into the large bowel, which could not be reduced. On opening the cæcum, about seven inches of gangrenous bowel was found. The hernia was entirely omental, and not in any way connected with the obstruction. The gangrenous bowel was drawn through the opening in abdomen and secured there. Patient died of shock in a few hours. Dr. Sheard considered this a suitable case for excision of the strangulated portion of bowel.

DR. OSLER looked upon this as an example of cases in which recovery sometimes takes place by the sloughing of the piece of small bowel invaginated. In cases of impacted fæces, with acute symptoms, would give opium in preference to purgatives.

DR. MULLIN said that in cases of obstruction from any cause, he would treat the acute symptoms in preference to operating.

DR. BOTSFORD (St. John, N.B.) read a short paper on *Inflation of the Lungs by Abdominal and Thoracic Traction*. His method was to draw the abdominal walls forwards, thus leaving a vacuum which would be filled by air entering the lungs. By securing a large circular disc of adhesive plaster to the abdomen he thought this could be easily accomplished. Had not tried it practically, but thought it would be useful in chloroform accidents, drowning, etc.

DR. MULLIN thought valuable time would be lost, and that this mode would not be found as suitable as the old methods of artificial respiration.

DR. BURNHAM (Toronto) had given anæsthetics in a great many cases. In cases of accident always relied on artificial respiration, with inhalation of nitrite of amyl. Considered the amyl a most valuable agent in these accidents. Never saw a death from anæsthetics.

DR. GRANT thought the method not practicable. In a recent case lowered the head with good results.

DR. DORLAND (Milwaukee) read a paper on *Successive Dropsies of Amnion always Specific*. In support of this theory he gave the history of six women he had attended in one or more confinements who suffered from this affection. In the



cases reported the amount of liquor amnii was calculated at from four to twelve quarts. The children were nearly all still-born, and showed very evident signs of syphilis. At some time or others of his attendance he obtained a history of syphilis in one or other of the parents. Five of the cases were treated with small doses of mercury, and iodide of potassium in their next pregnancies; and where the husband was diseased he was also put on treatment. In all these cases the subsequent children were born healthy, and the amount of liquor amnii was not excessive. Where the treatment was not continued in the second or third pregnancy, there was a decided tendency to a return of the original conditions. From a consideration of the cases given he thinks that successive dropsies of the amnion are always syphilitic. In the cases related it could not be due to inflammation of the amnion, as there were no symptoms of that condition; and it could not be caused by hypertrophy of the heart or kidneys of the foetus.

DR. OLDRIGHT asked if the result was not due to the absorbent action of the iodide rather than to its anti-syphilitic properties.

DR. OSLER asked if any of the children were dropsical, this condition being frequently seen with dropsy of the amnion.

DR. SHEARD asked if there were any changes seen in the placenta.

DR. MULLIN had frequently seen dropsy of the amnion, which he considered due to syphilis. How long would Dr. Dorland keep his patient under treatment?

DR. YEOMANS had seen cases of excessive liquor amnii in healthy women, where there was no evidence of syphilis.

DR. DORLAND replied that none of the children were dropsical. No appreciable changes in the placentas. Would keep the woman on specific treatment from the second to the seventh month of pregnancy.

The section then adjourned.

The section again met at 7 p.m., Dr. Graham in the chair.

DR. DUPUIS read a paper on the *Conduct of Medical Men Towards each Other, and Towards each Other's Patients*. He condemned the practice of the British rule of the new comer calling on those already settled in the place, and likened it to two

pugilists shaking hands before they fought. When a patient asks for a consultation, he should choose the medical man to be called; when the doctor asks for the consultations he should choose the consultant. He should strongly favor having the consultation held in the presence of the patient and his friends. Held that one may give an opinion to another man's patient even when the practitioner called is continued in charge of the case and without consulting with him. He then went on to say, "Take all the cases you can get, and keep them if you can without reference to the previous attendant." Considered it perfectly justifiable to report one's cases of operation or extraordinary cures in the papers, and asserted that this was different from advertising. Why should not medical men report their cases as well as the lawyer his speeches, or the clergyman his sermons. He was not aware until informed by Dr. Osler that Canada had a Code of Ethics. His views were very strongly condemned by Drs. Harrison (Selkirk), Osler and McCammon (Kingston).

Dr. CANNIFF was surprised that Kingston appeared to know so little about the Code of Ethics, as his presidential address two years ago had dealt exclusively with that subject, and had been published in the medical journals.

DR. OLLIVER (Kingston) said the Kingston practitioners knew the Code and most of them observed it faithfully. Moved the adjournment of the discussion. Carried.

DR. METCALF, Superintendent of the Kingston Asylum, read a paper on "*The Use of Hyoscyamine in the Treatment of Mental Diseases.*" He uses Merc's crystallized, and says it is the only reliable hyoscyamine. Used hypodermically, it acts more quickly and surely than any other narcotic. A full hypodermic dose is gr.  $\frac{1}{16}$  for an adult male and gr.  $\frac{1}{32}$  for an adult female. After the injection of a full dose, the pupils dilate, face flushes, pulse and respiration at first accelerated, then slowed, mouth becomes dry, feeling of giddiness, distances are not calculated well, articulation becomes imperfect, and patient soon falls into a sound sleep that lasts from six to eight hours, from which he awakes complaining of dryness of the mouth, but much refreshed. Maniacs require larger doses than melancholics. Hypodermically, it usually acts in twenty minutes; by mouth, in about an hour. Another reason for giving it hypodermically is, the dose is much smaller, which is a consideration, as it is very expensive. It should be given once a day, the dose to be increased slightly by use. It is said to impair the appetite, but Dr. Metcalfe doubts this. He has not seen any increase in the quantity of urine, as is usually stated. He gave the history in

detail of numerous cases of acute mania in which the attack was cut short by the use of this drug. In one case of recurrent mania, in which the patient was very noisy, refused food, and ordinary sedatives had no effect, a few doses of hyoscyamine were used with great benefit. In another case of acute mania, in which bromides and chloral failed, hyoscyamine acted rapidly and satisfactorily. In cases where it failed to cut short the attack, it usually ensured a good night's sleep, and no ill effects followed its use. It fails in a certain number of cases, but in these no bad results follow. It is most satisfactory in recent cases of acute mania. If no good results from a few doses, he discontinued its use. Had not used it in *delirium tremens*, but thought it would act well. He related a case of puerperal mania of months standing, in which it acted very rapidly, and patient made a complete recovery. He had no faith in chloral in acute mania.

DR. HURD, Superintendent of Asylum, Pontiac, Mich., added his testimony to that of Dr. Metcalfe of the benefits of hyoscyamine in acute mania. He considered it of great benefit in melancholia, especially where there is refusal of food. In melancholia, he gives from  $\frac{1}{8}$  to  $\frac{2}{8}$  gr. by mouth. Would not give it in fatty degeneration of the heart, as it is very depressing. While taking it the appetite improves; but as soon as it is withdrawn, the appetite fails again. He has seen choreiform movements result from its administration, but they disappeared as soon as the drug was stopped.

DR. CLARKE, Toronto Asylum, thought it should be more frequently used by general practitioners in cases of melancholia and puerperal mania before sending the patient to hospital or asylum; large doses of Tr. Hyoscyami might be used; would give as much as  $\frac{5}{8}$  to  $\frac{7}{8}$  in a dose. Did not think it acted as well in melancholia as in acute mania.

DR. THORBURN (Toronto) would not use the large doses of Tr. Hyoscyami recommended by Dr. Clarke.

DR. TROUTMAN (New York) testified to its good effects in acute mania. In acute delirium, with dry tongue and muscular tremors of some days standing, he thought it was directly contraindicated; also contraindicated in general paralysis. He considered muscular twitchings during sleep an unfavorable symptom.

DR. METCALF did not attach much importance to muscular twitchings; had seen no bad results follow.

DR. RODGER (Montreal) took the chair, and DR. GRAHAM read a paper on "*Leprosy in New Brunswick.*" He stated that he had gone to New Brunswick to study the origin of the disease, and to settle in his own mind, as far as possible, its

present mode of propagation. He found the settlers about Tracadie very poor, houses miserable, food poor in quality, consisting chiefly of fish, bread and potatoes. The first settlers were quite free from the disease, and it was said to have first appeared in a family in 1820. This family came from Caraquet, and there was no previous history of the disease in the family; it was attributed by them to having washed the clothes of some shipwrecked sailors. Dr. Graham then related how the disease spread in this neighborhood, attacking persons who were in no way related to the first sufferers. He mentioned many cases to show that the children of leprous parents were not always attacked with the disease. He said there were four ways in which it may be propagated—1, From endemic causes; 2, contagion; 3, heredity; 4, contagion and heredity. It is not endemic, because the same climate, food, and mode of living is similar over a large area where the disease has never appeared. The writer, from the history of the cases, thinks it is purely contagious, many persons being attacked with the disease in whose family no previous cases had occurred, and, again, many leprous persons having healthy children. Many persons in constant attendance on the cases have not contracted the disease; but this is seen in other contagious diseases. In conclusion, the writer said—1st, The origin and early spread of the disease cannot be accounted for by heredity, though it may predispose. 2nd, Mode of life cannot be the cause, though it also may predispose. 3rd, It is contagious and brought from without, and, finding suitable material, is spread from one to the other. In order to contract it, a low state of the system and lengthened and prolonged contact with leprous persons is necessary. Certain families appeared predisposed to it.

Remarks were made by Drs. Grant, Roddick, Clarke, Hurd and Hingston.

The section then adjourned.

#### SURGICAL SECTION.

The section organized at 2.45 p.m., Dr. Tye of Chatham in the chair. Dr. Gardner of Montreal, secretary.

After a few remarks, the Chairman called for Dr. Fenwick's paper on "*Imperforate Anus, with Fæcal Fistula.*"\* The reader of the paper first described in general terms the various forms of this anomaly, and then reported a peculiar case he had recently met with, and on which he successfully operated. A colored drawing in illustration was exhibited.

\* This paper will be published in a subsequent number of this Journal.

DR. McLEAN, Professor of Surgery in Ann Arbor University, thought the case a very rare one, and congratulated Dr. Fenwick on the excellent results of the operation.

The paper was further discussed by Drs. Holmes, Bethune, Tye, John Campbell, and Prof. H. Walker of Detroit.

The next paper was by Dr. Worthington of Clinton, Ont., on "*Retroversion and Retroflexion of the Uterus.*" The condition was alluded to briefly in general terms, and then the notes of four interesting cases were given. In the third case, immediately on commencing a vaginal injection of hot water, the patient was seized with violent pelvic pain and symptoms of collapse, followed by a severe attack with symptoms of peritonitis, and lasting for many days, but ending in recovery. The cases were treated with varying amounts of success by the Hodge-Smith pessary.

DR. GARDNER said everybody who treated such cases knew how troublesome they were, and that in a certain number it was next to impossible to give relief. He alluded to a practice of Lawson Tait, who, incidentally in a few cases after the operation for removal of the uterine appendages, had raised the fundus of the uterus and sutured it to the abdominal wall. He believed the practice justifiable, and thought that, in view of the modern small mortality after abdominal section, it might, in the future, be a perfectly justifiable operation, probably quite as safe and much more successful than the practice of Erich of Baltimore and Schultze of Jena, who both had, under ether, after dilatation of the uterus, forcibly stretched or torn away the adhesions which so often prevent replacement. The division of the adhesions was more certain than their stretching. In many such cases, however, it must be borne in mind that the conditions which complicate displacements are really more important than the displacements themselves. With reference to the symptoms of collapse in one of the cases, it shewed the great care necessary in prescribing such a simple remedy as a vaginal injection of warm water. It was not necessary, in such cases, that the water should reach the peritoneal cavity. Water is a fluid foreign in its nature to the endometrium, and he believed that simple contact was enough in certain cases of susceptibility from idiosyncrasy. Analogous consequences had followed the passing of a sound through the male urethra. As regards the uterus, there is evidence to shew that the nearer the lining membrane is to a condition of health the greater is the danger of such results. He (Dr. Gardner) had now under treatment at the University Dispensary for Women in Montreal an obstinate case of chronic endometritis, in which intra-uterine injections of pure carbolic acid always gave relief.

DR. HOLMES always recommended to his patients the fountain syringe, a cheap form of which he described. He takes care that the nozzle has no central aperture. He never uses the sound to replace the uterus, but invariably places the patient in the knee-chest position, and makes pressure on the fundus. In the case of adhesions, he gradually stretched them, and in illustration related a case in which repeated attempts in this way led to success, the patient became pregnant, and went to full term.

DR. TYE related two cases of fatal results after vaginal injections which had come under his notice in consultation with other physicians.

DRS. FULTON and HINGSTON also took part in the discussion.

The next paper was by Dr. Campbell, of Seaforth, Ont., on "*A Case of Femoral Hernia.*"\* The case was anomalous in some respects. The operation was not performed till three and a half days after onset of the symptoms because of certain peculiarities in the case. The patient recovered.

DR. RODDICK thought that surgeons were sometimes too chary in the use of force in taxis. He related a case in point. It was that of a woman who has had several attacks of strangulation with the usual symptoms. He has always been able by taxis to reduce the hernia, but on two or three occasions, during his absence from town, friends of his who had seen the case for him had failed and were preparing for operation, when a further use of force succeeded in reducing the hernia.

DR. OLDRIGHT said that if taxis is to succeed it must be employed early.

DR. FENWICK had recently seen Prof. Lister, and was told by him that he (Dr. L.) cuts off the sac and sutures the edges of the incisions with good results. Dr. F. had removed the omentum in a case of double ovariectomy. The patient recovered.

DR. SAUNDERS, of Kingston, thought Dr. Roddick's advice might, if followed by inexperienced medical men, lead to dangerous results. He had seen a case in which another medical man had ruptured the bowel by efforts at taxis.

DR. MCLEAN, Ann Arbor, believed that a new era was dawning in the treatment of hernia, and that operations for the radical cure of hernia will soon be much more frequently performed than they are now.

DR. SULLIVAN (Kingston) thought it a mistake to wait for urgent symptoms before operating. He had known some cases where vomiting was absent.

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\* This paper will appear in full in a subsequent number of this Journal.

DR. BETHUNE mentioned a case of radical cure of hernia after a kick on the truss worn over the site of descent.

DRS. TYE and SLOAN had found it necessary in some cases to use a good deal of force in the taxis.

DR. GRANT related a remarkable instance of a tumor simulating hernia.

DR. HINGSTON also discussed the paper and related cases.

The section then adjourned.

This section again met at 8 p.m.

DR. McDONALD, of Londonderry, read a paper on "*Paracentesis Pericardii*." The paper dealt with a single case of pericardial effusion which produced very great distress, and was not relieved by medicinal treatment. He aspirated in the fifth intercostal space near the normal situation of the apex of the heart, and removed thirty-two ounces of slightly turbid serum. This was followed by relief of all the symptoms. There was some reaccumulation which yielded to treatment by drastic purges, diuretics and sustaining treatment. The patient has steadily improved since the operation (now nearly three months ago.) She has an endocardial murmur. This was present before the operation. With the exception of this and slight palpitation she is in good health. Dr. McDonald felt the impulse of the heart against the point of the needle while aspirating, and would not have hesitated to lay open the pericardium if he had failed to remove the fluid with the aspirating needle.

DR. JAMES BELL, of Montreal, next read a paper on "*Resection of Intestine*." The paper consisted of the reports of fourteen cases of experimental resections of portions of the intestine of dogs, as well as three cases of different forms of disease in the human subject which had come under the writer's observation recently, and in which he thought such an operation had been indicated. Of the latter, one was a case of simple ulcer of the hepatic flexure of the colon, which ultimately produced complete obstruction of the bowel. The second was a case of strangulated umbilical hernia, and the third a case of strangulated inguinal hernia, which had undergone spontaneous cure by sloughing and opening through the skin of the groin. Extracts from recent journals were also given in which cases were reported as having been successfully operated upon by Prof. Czerny, Dr. Koerberlé of Strasburg, Dr. Wm. Fuller, of Grand Rapids, Mich., U.S.A., and others. Of the fourteen dogs operated upon, four died from the effects of the operation (but

all from preventable causes), and one escaped on the fifth day after operation and was not recaptured. Nine recovered perfectly from the operation. Of them one died of distemper on the 18th day, another from the same cause on the 45th day, and a third from senility on the 62nd day after operation. The remaining six were killed at periods varying from one to three months after the operation, and were all at the time of death in perfect health and well nourished. From three to thirteen inches of different regions of the bowel were removed, including in one case the cæcum and portions of the gut on either side. The ends of the gut were united in some cases by catgut, and in others by silk sutures, and no attempt was made to remove the mucous membrane so as to bring the cut surfaces of the outer coat into accurate contact. The portions of bowel which had been thus united were exhibited and showed perfect union. The writer considered the operation an easy and a safe one, and predicted that in the near future it would be generally recognized as such, and many lives would be saved by it.

Dr. Bell was highly complimented by several speakers on the originality and ability displayed in his paper. It was desirable that more papers of this character should appear before the Association. Dr. Sheard of Toronto here exhibited a specimen of intussusception of the bowel. The case was one which, in his opinion, might have been saved by an operation of the kind performed by Dr. Bell in his experiments on the dogs.

The section then adjourned.

#### SECOND DAY—SEPT. 6.

Meeting opened at 10.30 a.m.

Minutes of the last meeting read and confirmed.

DR. BOTSFORD reported that the Nominating Committee were prepared to present their report.

The PRESIDENT said it was usual to receive the report on the last day.

DR. FULTON read the report on *Necrology*. He reported the death of the following members during the past year:

Hon. Drs. D. Campbell, of Port Hood, N.B., and Dumouchel, of Quebec; Drs. Scott, Montreal; John Fraser, Fonthill; Edwin Henwood, Hamilton; Wm. H. Bacon, Brantford; J. N. Reid, Thornhill, formerly professor of physiology in the medical department of Victoria University; Samuel Richardson, Galt; R. H. Russell, Quebec; Milne, Claremount; S. Shaw, Dalhousie, N.B.; Jas. A. Sinclair, Colborne; L. F. Oliver, St. Ferdinand; T. R. Fraser, Pictou, N.S.; Robt. Thompson, St. Stephen, N.B.; Duncan McGregor, Winnipeg; Joseph Clark, Oshawa; James McG. Campbell, Sherbrooke, N.S.; Joshua Chamberlain, Frelighsburg, Que.; J. S. Balmer, Princeton; Fred. B.



Going, St. Thomas; A. Morin, Halifax; J. J. Clark, Barrington, N.S.; A. Kollmyer, Montreal; W. D. Ross, Pembina; G. E. Gascoigne, Brockville; J. A. Stevenson, London; Jos. A. Whyte, Montreal; Jonathan Wolverton, Grimsby; McIver, Pembroke; James A. Hunter, Newcastle; Robt. Eustace, Canso; A. Crisholm, Alexandria, Ont.; James A. Sievewright, New Westminster, B.C.; Wm. Ruddock, St. Martin's; E. Rousseau, Quebec; Norman McGregor, Lucknow, and Edward Laberge, St. Philomène, Quebec.

DR. THORBURN read the report on *Education*. He referred briefly to the summer courses about to be established in Ontario, and to the formation of the Ladies Medical College at Kingston.

Several new members were proposed and elected. The meeting then divided into sections.

#### MEDICAL SECTION.

Meeting opened at 11 a.m.

DR. TOBIN (Halifax) read a paper on "*Pigmentary Degeneration of the Retinæ, with special reference to its causation by consanguinity of parents.*" He gave the history of a few cases in which this disease occurred, in which no other cause could be found. After giving the symptoms and describing the microscopic appearances, he said it was progressive, usually symmetrical; the subjects were often colour blind, and it is frequently seen in deaf-mutes; most frequent in young boys. He quoted authorities to show that twenty to forty per cent. of the cases are due to consanguineous marriages. Syphilis is often a cause. Treatment is of no avail.

DR. BULLER could never trace any connection between pigmentary degeneration of the retinæ and consanguinity of parents. He said there was no connection between the typical disease and syphilis.

DR. PROUDFOOT (Montreal) agreed with Dr. Buller as to cause. Most of his cases were females.

DR. FOWLER (Kingston) next showed a case of *Hydrarthrosis*, in a young girl aged 7. Began one year ago, and has been steadily increasing. Commenced in the joints of the hands and wrist, next attacked the feet, and was now beginning in knees.

DR. GRAHAM had seen a case affecting the joints of the lower extremities. Injections of iodine had proved beneficial.

DR. BURNHAM (Toronto) exhibited Dr. Mortimer Granville's "Nerve Vibration Instrument," and explained its mechanism. Dr. Granville uses it in cases in which the nerve-centres are affected as shown by pain or uncontrollable movements, as in neuralgia or the lightning pains of locomotor ataxia. He thinks in these cases the pain is due to

perverted nerve currents, and that the application of the vibrator changes the currents and brings them nearer the normal. Dr. Mortimer Granville says that if he gets a case of locomotor ataxia early enough, he will arrest the progress of the disease, though he will not cure it. It is found very beneficial in cases of neuralgia and sciatica. Dr. Burnham related a case of neuralgia of sixteen years standing, from which no relief could be obtained by the usual methods of treatment; the patient was greatly debilitated, and at times the suffering was excessive. Since he commenced the use of the vibrator she had more relief than she has had for three years, and Dr. Burnham has hopes of an ultimate cure. Dr. Burnham pointed out that the instrument was only in its infancy, and that Dr. Granville hoped to see it very much improved.

DR. HURD asked if it had ever been used for the aura of epilepsy. Perhaps the result was due to a change in the nutrition of the nerve.

DR. BURNHAM could not say if the result was due to a change in the nutrition of the nerve. Dr. Granville's explanation, he said, was that it changed the nerve current; but on this point Dr. Burnham said Dr. Granville was not positive.

DR. OSLER read a paper on "*Some Features in Chronic Bright's Disease*." 1. Its latency at the outset, often simulating other diseases. 2. Peculiarities in the mode of onset of the uræmic symptoms. 3. Patients frequently die with profound uræmic symptoms, highly albuminous urine, and numerous casts, yet, on *post mortem* examination, no coarse changes can be made out. He gave cases to illustrate each. (This paper will be published later in this Journal.)

DR. GRAHAM relied most on the sphygmograph for the detection of the disease. Had seen a case a short time ago, with a very small amount of albumen, little or no diminution in the amount of urea, yet the patient died in five weeks. Thought there was a general arterio-capillary fibrosis.

The section then adjourned.

#### SURGICAL SECTION.

The section met at 11.15 a.m.

The first paper was by Dr. Holmes of Chatham, on "*Erosions of the Female Urethra*."

DR. HINGSTON next exhibited a *Note-Book for Abdominal Tumors*. He had found Spencer Wells' note-book deficient in some respects, and hoped the one exhibited would be found to present several improvements.

DR. MAJOR of Montreal then read a paper on "*Pharyngo-Nasal Growths.*" The author said these were very common, much more so than generally supposed. They often accounted for the symptoms of naso-pharyngeal catarrh. The commonest form met with is the adenoma, which usually consists of soft pendant growths, easily removed with the finger-nail. Another form, rarer, much more formidable, because it tends to recur after removal, is the fibroma. It is firm in consistence, and pink-colored. From the frequency with which arachnitis has followed avulsion of such growths by forceps, Dr. Major preferred the Jarvis' snare.

DR. OLDRIGHT of Toronto then read a paper on "*Fibro-Myxoma,*" containing the report of a case of tumor of this kind that he had removed from the thigh of a woman. The lobes of the tumor extended between the muscles, and the whole growth came out, leaving the muscles and other structures clean.

DR. SHEARD of Toronto, in speaking of the prospects of recurrence after removal of these growths, said that if sarcomatous elements are present, recurrence is probable, but not invariable. Bad conditions of system or surroundings of the patient favor the development of the more lowly organized cell-elements of the growth, with tendency to degeneration and recurrence. Strong constitutions, on the other hand, tend to develop fibroid growth, with less tendency to recur.

DR. PROUDFOOT read the next paper, on "*Color-blindness.*" This affection was described a hundred years ago, but it had received comparatively little attention till within a few years past. Helmholt's theory of this affection was discussed, and the dangers to life and property from the inability of railway and steamship employés to appreciate color-signals alluded to. Dr. Joy-Jeffries of Boston had done much to draw public attention to the dangers from this cause, and the necessity for examination by experts of all candidates for positions in which the capacity to detect colors is necessary. Legislative acts, with necessary provisions, are in force in Germany, Great Britain, and several of the States of the American Union, but no such act has, as yet, been discussed in the Canadian Legislature.

The hour for adjournment having arrived, the following papers were read by title :—

"Common Errors in Ophthalmic Practice," by Dr. Buller, Montreal.

"Notes on Intra-uterine Growths," by Dr. Gardner, Montreal.

"Spindle-celled Sarcoma," by Dr. Sheard, Toronto.

The third day was taken up with general business and election of officers. The proceedings will appear in our next number.

CANADA

# Medical and Surgical Journal.

MONTREAL, SEPT., 1883.

## ENDOWMENT OF MCGILL MEDICAL FACULTY.

Our readers will remember that at the opening lecture of the McGill Medical Faculty last October, Dr. Howard urged upon the citizens of Montreal the necessity of an endowment fund, if the school was to advance to a position in keeping with the rapid development of the science and art of medicine. At once a generous friend offered \$50,000 if a similar sum were raised by August in commemoration of the long services of Dr. Campbell. We are gratified to be able to announce that somewhat more than the required amount was collected, and the anonymous friend, who turns out to be the Hon. Donald A. Smith, has fulfilled his promise; the fund to bear the name of the "Leancoil Endowment," while the other amount collected by the Faculty will be known as the "Campbell Memorial Fund." With the interest accruing from \$100,000 many important improvements can gradually be brought about which will greatly increase the teaching facilities. Nothing definite has as yet been arranged concerning the disposition of the funds; but it is probable that for a few years, at least, the interest will be devoted to general purposes. The new Dean is to be congratulated on the success of the movement which has been due in no small measure to his energy and influence. Let us hope that this is but a beginning, and that others, stimulated by the example, will give generously to our medical colleges.

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### WHO IS HE?

It appears from an editorial in the *New York Medical Journal* of Sept. 8th that we have in our midst an unappreciated genius who, being neglected at home, is seeking a wider and more congenial field abroad. This prodigy, it seems, sent a letter, accompanied by a card, setting forth all his honors (!!) and qualifications, to a prominent New York physician. He states in his letter

that he is willing to serve as an assistant to some eminent practitioner. He yearns particularly for New York, but has no objection to Baltimore or Washington. His failure at home (Montreal) he attributes to the narrow notions of Ethics that prevail in Canada, whereby physicians are prevented from acquainting the public of their great abilities by the various means made use of by persons in other spheres of life. He feels the germs of greatness in his soul, and all he wants is a "chance." The *N. Y. Medical Journal* advises our yearning and aspiring genius to give up his dream of American license, and suggests that it would probably be better for him to shorten sail at home. We should advise him to set sail for the Far West, where no ethical restraints are imposed, and where geniuses are never entertained unawares. We should like our friends on the other side of the line to understand that the use of "reduced bills for cards" is quite as much frowned upon by the profession here as in the older communities in the United States, and that the card of our disappointed, but ambitious, fellow-citizen is as much a curiosity to us as it is to them. The card, as given in the *New York Medical Journal*, we print below:—

\_\_\_\_\_, M.D.,  
 PHYSICIAN, SURGEON,  
 \_\_\_\_\_ Street, Montreal.  
 Graduate in Medicine, 1863, \_\_\_\_\_ University.  
 Licentiate 1863, Member, 1868, College of \_\_\_\_\_, L.C.  
 Member 1869, College of \_\_\_\_\_, Ontario.  
 Member 1881, \_\_\_\_\_ Society, Montreal.  
 Senior \_\_\_\_\_ Board of Health, Montreal.  
 Director Canadian \_\_\_\_\_ Institute.

*Treats Specially:*

NERVOUS DISORDERS IN BOTH SEXES, NERVE EXHAUSTION, INEBRIETY, AND  
 DISEASES OF WOMEN AND CHILDREN.

## CANADA MEDICAL ASSOCIATION.

The Kingston meeting was on the whole very successful. The number in attendance fell somewhat below the average, but all sections of the country were fairly represented. The local committee had made excellent arrangements for the reception of the association, and ample accommodation was afforded by the new buildings of Queen's College. Unfortunately the largest hotel in the city was closed for repairs, and good quarters were difficult to get. Dr. Mullin made an admirable President, and under his guidance the general meetings passed off very harmoniously. In the sections a number of good papers were presented, which elicited full and animated discussion. Dr. Graham's paper on Leprosy at Tracadie, and Dr. James Bell's on Resection of the Bowel, seemed to be the

most highly appreciated. In the Medical Section Dr. Dupuis' communication on Medical Ethics caused no little commotion. It struck at the root of all principles of professional conduct, and under a proper system of supervision of papers its presentation would not have been allowed. We sincerely hope that the Doctor's practice is better than his profession. The excursion among the Thousand Islands tendered by the local physicians to the Association was a most delightful affair in which some two hundred joined. Montreal is to be the next place of meeting, and it is hoped that arrangements may be made to hold it just before the British Association for the advancement of science in order that members may remain and take part in that gathering which will embrace many of the leading medical men of England. A warm invitation was received from Winnipeg to meet in that city, but the general feeling was in favor of Montreal. The result of these meetings is not expressed in the amount of work done—that is often the smallest part. More important, deeper and far-reaching is the influence exerted by the social intercourse of men from all parts of the country. New friendships are formed, old ones cemented; sectional differences and jealousies are forgotten, and men return to their work stimulated and refreshed.

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### MILITIA SURGEONS.

The militia surgeons attending the Kingston meeting, took advantage of the occasion to discuss their grievances. The following recommendations presented by Dr. Thorburn to the Canada Medical Association, received the approval of the meeting. We feel sure that the courteous Minister of Militia will do what he can to have these matters put in order.

1. The organization of a militia medical department, with a chief medical officer at headquarters.
2. That the senior medical officer in each military district be appointed principal medical officer.
3. That substantive rank be granted to all military medical officers.
4. That the medical department shall be supplied with all necessary equipment for the use of the force when required.
5. That it be further submitted to the honorable, the Minister of Militia, the advisability of changing the titles and designations of Canadian medical officers, so that they will correspond with those held by the medical officers of the British service; thus, surgeon instead of assistant surgeon, surgeon-major instead of surgeon, brigade surgeon instead of surgeon-major, deputy surgeon-general, etc.
6. That the scale of pay and allowances of the militia medical department be assimilated to that of corresponding ranks of the British medical department.

THE CANADA SANITARY ASSOCIATION.—At the close of the medical convention about fifty doctors and laymen met and organized the sanitary association as had been suggested at the Health Convention at Ottawa in December last. Dr. Sweetland, of Ottawa was elected President, and Mr. Boxer, of Montreal, secretary-treasurer. An executive committee was formed and arrangements made for actively carrying on the work of the society. Medical men wishing to join are requested to send their names to Mr. Boxer, C.E., Montreal.

PRINCIPAL DAWSON.—After more than a quarter of a century of continuous labour on behalf of McGill University, Dr. Dawson has gone abroad for a year to seek a much needed rest. We trust that he will return to his duties refreshed in mind and body, and be long spared to the University, over which he has so long and successfully presided. On the 5th inst. a number of Citizens met and presented Dr. Dawson with a purse of \$5,000 as a mark of their appreciation of his efforts in the cause of education in Canada.

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### Personal.

Dr. Hurlburt has removed to Mitchell, Ont.

Prof. Pancoast, of Philadelphia was in town for a few days, J. M. Dunsmore, M.D. (McGill, '70), has removed from Mitchell to Philadelphia.

Dr. Groves, of Carp, Ont., was in town last week on his wedding tour.

Ovide Martel, M.D. (McGill '83), has begun practice in St. Urbain street.

J. S. Smiley, M.D. (McGill '80), has removed from Rawdon, Q., to Portsmouth, Iowa.

Dr. A. A. Browne has returned from a tour of inspection of the Lying-in-Hospitals of Great Britain and Germany.

Dr. H. P. Wright, of Ottawa, returned from Europe with Dr. Browne.

Dr. G. A. Sihler (McGill, '83), has gone to Europe to complete his studies.

Arthur Storrs, M.D. (McGill, '76) is practising at Wexborough, York, Eng.

Dr. Fenwick has returned from England, where he attended the British Medical Association.

R. H. Klock, M.D. (McGill, '82), of Alymer, Q., has gone to Port Arthur to join T. J. S. Smellie, M.D. (McGill, '77).

Sir Wm. MacCormac, surgeon to St. Thomas' Hospital, London, was in the city last week.

F. G. Finley (Primary Class, McGill, '82-3), recently passed the Intermediate Examination for the degree of M.B., London, Eng.

Thomas Cook, for the last thirty years janitor to the McGill Medical Faculty, owing to increasing infirmities, has been pensioned by the Faculty.

Dr. Roddick sailed for Europe on the 8th. He will be absent for a year. Dr. Shepherd will take his clinical classes during the winter session at the Hospital.

Dr. Walsh, of Washington, editor of the *American Retrospect* spent a couple of days at the Windsor. While here he visited Dr. Bessey's vaccine establishment.

Professor A. P. Simpson, of Glasgow University, was in town for several days, and visited the schools and hospitals. He went on to the Rocky Mountains with the C.P.R. party.

Dr. James Stewart, the new Professor of Materia Medica and Therapeutics in McGill College, returned from Vienna on the 3rd. He and Dr. Osler have taken Dr. Roddick's house during the latter's absence in Europe.

Dr. Hurd, Superintendent of the Asylum at Pontiac, Mich., visited the Longue Pointe Asylum lately, and then went on to the Association meeting at Kingston. He was disgusted—as are all intelligent physicians who know anything of it—with the way in which the institution is conducted.

Dr. Graham, of Toronto, spent a few days in the city on his return from a visit to Tracadie, N.B., where he has made a most exhaustive study of the Lepers at the Lazaretto. Dr. Fox, of New York, was there a short time before him, but only spent a few hours. Dr. Graham's paper on the subject was generally acknowledged to be the most interesting one presented to the Association at Kingston.

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### Medical Items.

—The semi-annual meeting of the College of Physicians and Surgeons of Quebec will be held at Quebec on the 26th inst.

—The introductory lecture of the McGill Medical Faculty will be delivered by Dr. Workman, of Toronto, on the evening of October 2nd.



—The autumn Matriculation in Medicine of McGill University will be held at the High School, Montreal, on Friday and Saturday, the 5th and 6th of October.

—Dr. George H. Fox and several other New York physicians interested in diseases of the skin have recently returned from New Brunswick, where they have been making a careful study of the cases of leprosy in the Tracadia Lazaretto. These are now 24 in number, although five years ago there were 36.

—The centennial celebration of the Harvard School will take place on October the 17th. The new school building will then be opened. Dr. Oliver W. Holmes will deliver the introductory address, and a reception will be given by the Faculty. Invitations will be issued to the Deans of the Canadian Faculties and other prominent medical men.

EDOUARD LABERGE, M.D. (McGill).—Dr. Laberge died at St. Philomene about the 29th ult. He graduated in 1856 at McGill College, and spent an active and useful life. He was a member of the Provincial Parliament.

THERAPEUTICS.—It must be generally admitted that the manner of the physician in the sick room must have some influence for good or for ill upon his patient; but it is something new to find rules for conduct at the bedside included within a systematic course of therapeutics. We find this, however, laid down as a part of the course in one of our Canadian schools.

THE "JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION."—Those in charge of this undertaking, which was decided upon at the recent Cleveland meeting, have lost no time in rendering it an accomplished fact. It is a 32 page, of about the size and somewhat the make-up of the *Medical News*. We are glad to welcome this new weekly, which is certain to receive extensive support throughout the Union, and has a fine future before it. Of course, of the actual value of the contents we cannot judge, until fair time has been allowed to get into good working order.

—When you examine the hand of a patient, and find on it the evidences of palmar psoriasis, be that hand the jeweled and perfumed one of a queen or the dirty paw of a beggar, it is the hand of a syphilitic.—*Hebra*.

—Particular attention is drawn to advertisement of Medical Practice for sale, on exceedingly favorable terms, in a rising town of over 3,000 inhabitants. To a young man such an opportunity as this only occurs once in a lifetime.