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# CANADA

# MEDICAL & SURGICAL JOURNAL

**NOVEMBER, 1884.**

Original Communications.

ON SOME OF THE VARIETIES OF DYSPNŒA MET  
WITH IN BRIGHT'S DISEASE.

By R. P. HOWARD, M.D., L.R.C.S.E.,  
Professor of Theory and Practice of Medicine, and Dean of the Medical  
Faculty, McGill University.

*(Read before the Canada Medical Association, at Montreal, August, 1884.)*

GENTLEMEN,—In selecting this subject as one not unworthy of the consideration of the members of the Association, I am influenced chiefly by its practical importance to medical men, and partly by the comparatively slight attention it has received from English authors. You will not expect a history of the subject at this time; nor will it be necessary to prove to those listening to me the curt treatment it has received from our English-speaking colleagues in Europe and America.

In speaking of *some* of the varieties of dyspnœa met with in Bright's disease, I will simply mention and dismiss without further consideration that common variety observed in both parenchymatous and interstitial nephritis which is largely referable to organic affections of the respiratory organs, such as bronchitis, hydrothorax, pulmonary œdema, etc. This variety is not apt to be overlooked when the cause of the dyspnœa is investigated, although even in it the respiratory disturbance is probably not due solely to the structural lesions revealed by the physical signs. This paper will rather be confined to some of those varieties of dyspnœa and disturbed respiration met with in Bright's disease not dependent upon discoverable disease of the lungs, pleura, or heart; and in describing them, I will do so in a clinical way

in connection with some of the cases in which they were observed by myself. And first of a case of *chronic interstitial nephritis*, in which the early and distressing symptom demanding attention was a *continued dyspnœa*.

On the 17th December, 1874, Mr. A. consulted me on account of chilliness, pain across the lumbo-sacral region, and *distressed breathing*, with sense of tightness in the chest during any exertion—symptoms which he attributed to exposure to cold upon a boat a few weeks before. Aged about 50, he had always been a very healthy man, much exposed to the vicissitudes of the weather, as the active manager of a line of forwarding boats. “Exploration of the chest detects no signs of disease in lungs or pleura. Heart’s sounds free from murmur; impulse strong; apex beat a finger’s-breadth inside nipple line. Radial pulse resisting; feels like the vas deferens—smooth, not beaded; 90 in minute. Eyelids slightly puffy. No pitting of ankles.” Of late, contrary to his habit, has risen nightly two or three times to micturate. Urine abundant; pale, free from deposit; specific gravity, 1008; contains about one-tenth its volume of albumen. A subsequent examination discovered very few fragments of granular casts.

The case impressed me very much at the time, because of the *early appearance and prominence of the dyspnœa*, unexplained by the state of the lungs or heart, and fairly referable, in my opinion, to chronic interstitial nephritis, as indicated by the co-existence of the dyspnœa with albuminuria, great tension of the radials, and signs of a strong left ventricle. Headache soon became an additional symptom, subsequently general dropsy supervened in spite of removal to the sunny south, and death followed in July, 1875. No autopsy was permitted.

This may be fairly regarded as an instance in which *dyspnœa* occurred as an *early and prominent* symptom of chronic Bright’s disease, and as an example of the cases to which M. Hervier, in 1877, was perhaps the first to draw attention under the title “*De la Dyspnée Urémique comme symptôme primitif de la Néphrité latente.*”<sup>\*</sup> The dyspnœa of Bright’s disease may also

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<sup>\*</sup> *Thèse de Paris*, 1877.

present the *interrupted* character of spasmodic asthma. Both forms may co-exist, as in the following case, and what is more important, clinically, the paroxysmal, like the continuous dyspnœa, may be the early distressing symptom of an unsuspected renal affection.

W. K., aged 49, was sent to me by my able friend Dr. Gun of Durham, Co. Grey, on the 7th July, 1870, on account of *paroxysms of asthma*, which resisted treatment and *alternated with a continuous dyspnœa*. A temperate man, he never had been ill until two years before calling on me. At that time he had bronchitis, which relapsed, the entire illness lasting about three months. It was about the end of this indisposition that he first experienced habitual dyspnœa, with, at times, paroxysms like those of spasmodic asthma, a disease not unknown in the patient's family. An examination of the chest gave the following facts: Normal respiration everywhere; expiration not prolonged; absence of adventitious sounds; limits of lung normal; no local bulging. Cardiac sounds free from murmur; the first shorter than natural; superficial cardiac dulness slightly extended, and the impulse increased in force. Heart's action rapid, tumultuous, and occasionally irregular. Urine abundant, about six pints in 24 hours; contains a moderate amount of albumen. No œdema of lids or ankles. Seven months later Dr. Gun reported as follows: "œdema has appeared in legs; urine still abundant, and contains more albumen; respiration has become 'generally easy,' but occasional *paroxysms of severe dyspnœa* continue to recur." He died two months later, and during the last few weeks his uræmic sleepiness was frequently disturbed by dyspnœa.

The following case, sent me in June last (1884), is a striking illustration of severe dyspnœa on the slightest exertion as *the* symptom which compelled the patient to seek advice under the supposition, shared in by her attendant, a man of much experience, that she had disease of the heart, while it was really a case of chronic interstitial nephritis, with the sequential cardiac hypertrophy of that affection. In this instance, the severe attacks of dyspnœa were accompanied by paroxysms very like those of angina pectoris.

Mrs. —, aged 57 years, mother of a large family, had always enjoyed excellent health until her grand climacteric period, when she experienced her first attack of arthritis in the ball of the right great toe. Similar attacks have continued to recur every couple of months, chiefly in the same articulation of either foot, and once in an ankle and one knee, until a year since, when they ceased, leaving some moderate enlargement of the first metatarso-phalangeal articulation. It was about the cessation of the above attacks of arthritis, which, by the way, are relieved by colchicum, that she first experienced any shortness of breathing; it has continued to be felt ever since upon the slightest exertion, even when walking a few yards. Some days dyspnoea is not much felt, and her breathing is usually better in the morning than later. The *severest* attacks of dyspnoea are accompanied by a pain starting from under the lower angle of scapula forward to the sternum, and down the front of right arm to the elbow. The dyspnoea and the angina will rapidly subside if she sits down. She is stout, healthy-looking, and not particularly pale. No puffiness of lids or ankles; no pitting along the tibiae. Examination of lungs reveals no disease. Cardiac impulse strong; apex beat in nipple line, and very distinctly felt; sounds loud and devoid of murmur. No soufflet up aorta or pulmonary artery, and no sign of intra-thoracic tumor. Pulse 84, of increased tension and fair volume—is often at times irregular. She gets up once every night to micturate. Urine of the afternoon contained albumen—say, one-tenth its volume—and some medium and large light granular casts.

In this case, the co-existence of the signs of hypertrophy of the left ventricle, with albuminuria and a history of chronic gout, point so decidedly to the probable existence of the “contracted gouty kidney,” that I assume that to be the correct diagnosis, and believe that the dyspnoea may be more reasonably referred to impairment of the renal functions than to latent degeneration of the cardiac substance—either fatty or fibroid—either of which condition of the heart would account for the angina-like attacks.

Another variety of dyspnoea or disturbed respiration occasionally met with in Bright’s disease is that known as the *Cheyne-*

*Stokes respiration*—first described by the former in 1818, and by the latter at a subsequent date.

At the meeting of this Association held in Hamilton in 1881, on the occasion of an interesting paper upon a case of Cheyne-Stokes Respiration, read by Dr. Zimmerman, I related a typical instance of that kind of dyspnœa which had occurred in one of my puerperal patients, the subject of uræmic eclampsia and coma; and to me there appears no reason against its occurrence in the other acute forms of Bright's disease, when the renal functions are gravely impaired—in scarlatinal nephritis, for example. But I quite recently met with a case of *chronic* Bright's disease, in which the peculiar form of dyspnœa in question was not only *unaccompanied by coma*, but was an abiding symptom from day to day.

In February last, 1884, my old friend Dr. Jones of Prescott summoned me to see a case of chronic Bright's disease, the main features of which were as follows:—M. A., aged 52 years, had been for about a year obliged to get up at night to micturate, and had done so more frequently of late; for about same time has experienced some dyspnœa when walking. Six or eight weeks before my visit the dyspnœa increased and assumed the peculiar rhythmic character known as the Cheyne-Stokes respiration. Morning vomiting of mucus had existed a few weeks, and œdema of the legs for ten days. Several examinations of the urine had failed to find albumen, until the day of my visiting him, when it existed in considerable amount, and a few hyaline and light granular casts were also visible with the aid of the microscope. The radial pulse was tense; the heart's impulse strong, with a peculiar double beat; the apex impinged half-an-inch inside the nipple line. The breathing during the examination and throughout my visit presented the following characters: Each inspiration became shorter and feebler until it could not be perceived; a total arrest of respiration for a few seconds ensued, and then inspiration returned, at first feebly and slowly, but grew progressively deeper and stronger until it became unduly exaggerated; and this rhythm persisted.

It was a matter of much interest to me to recognize what may

be called *chronic* Cheyne-Stokes dyspnoea in a patient walking about his house and the subject of Bright's disease. As a general rule perhaps, this peculiar dyspnoea, when observed in this connection, indicates the approach of death within a few days; in this man, however, it had already lasted six or eight weeks, and the end did not appear imminent. A few years ago I noted, with my colleague and friend Dr. Osler, carefully, and for the first time, the presence of Cheyne-Stokes breathing at intervals during two or three weeks. It occurred in an aged man gradually succumbing to what appeared to be general failure of the bodily functions consequent upon advanced age. It was unattended by coma for a week or two, although for a few days before death stupor obtained. Puzzled at the time to account for the persisting Cheyne-Stokes respiration, there being no reason for suspecting any organic disease of the brain or heart, I am now inclined to attribute it to failure of the renal functions, and I would suggest the importance of carefully examining the urine in every case in which the peculiar respiration in question is observed; it will probably frequently reveal an unsuspected affection of the kidneys. Indeed I hold that it will be more frequently found to be an evidence of renal disease than of fatty degeneration of the heart (Stokes), or dilatation and inelasticity of the aorta (Hayden)—views respectively held by Stokes and Hayden. And when it is observed in these latter affections, I doubt not that renal inadequacy from associated fibroid kidneys is the actual cause of the peculiar disturbance of the respiration in the majority of them, rather than a morbid condition of the heart's fibre or the aorta's walls.

Respecting the pathogeny of these several forms of dyspnoea observed in Bright's disease it will not be wise to speak at any length, as it would unduly prolong this paper. That the *continuous* dyspnoea and the *paroxysmal* or *asthmatic* forms are of uræmic origin there can be little doubt, and it is highly probable that in chronic Bright's disease the condition of the blood also plays its part in the causation of the persistent shortness of breath sometimes present. The blood globules are not only reduced in number, but their power of absorbing oxygen is much

diminished, and an increased respiratory effort—a dyspnœa—results. The Cheyne-Stokes disturbance of breathing of Bright's disease is probably also a consequence of what is called uræmia.

It is true that Cuffer has produced the Cheyne-Stokes type of breathing readily in dogs by injections of carbonate of ammonia, and less promptly and severely by injections of creatine; and that he regards these principles as the active agents in the production of uræmia. But the explanation of uræmia is not settled; nor is that of Cheyne-Stokes respiration,—and it is no part of my plan to discuss the numerous hypotheses extant regarding them.

Besides these several varieties of dyspnœa observed in Bright's disease, there is yet another of much more rare occurrence, and of which but two examples have presented themselves in my practice.

About 25 years ago a young woman entered the Hospital under my care suffering from acute renal dropsy and urgent dyspnœa, which could not be explained by physical examination of the chest. There was some evidence of laryngeal obstruction, not at all characteristic, when I saw her, and she died rather suddenly before my next visit. At the autopsy, very considerable serous effusion was found in the false vocal cords, the ary-epiglottic folds, and in the posterior aspect of the arytenoid region of the larynx. Apart from these laryngeal conditions, and kidneys exhibiting the early stages of acute parenchymatous nephritis, there was nothing found in the cadaver to account for the fatal dyspnœa. Neither coma nor convulsions had preceded death.

It was not till fifteen or more years after the preceding case that a second one of severe *laryngeal* dyspnœa in Bright's disease crossed my path. The subject of it, a man of about 36, had been about a week ill with ordinary scarlatinal dropsy. His children were still passing through that contagious disease. Suddenly he experienced some difficulty of breathing, which steadily increased. An examination of the chest revealed nothing capable of accounting for the decided and progressive dyspnœa. On the other hand, there were signs of laryngeal



obstruction—viz., depression of the base of chest and episternal pit during inspiration ; sense of obstruction in the larynx, with feebleness of voice : weak respiratory murmur in lower parts of lungs, unattended by dulness on percussion, etc. On the second day these symptoms had become so urgent that, in consultation with Dr. Drake, it was agreed to perform tracheotomy at once. The introduction of the tube gave instant relief to the dyspnoea, and so far confirmed the correctness of the diagnosis.

I have never met with laryngeal dyspnoea in chronic interstitial nephritis, and its rarity in the parenchymatous form is proved by the few examples of it mentioned in the monographs upon Bright's disease. In this paper I have endeavored to illustrate the following points :—

1st, That marked dyspnoea may occur in Bright's disease not due to gross lesions in the lungs, pleura or heart,—such as inflammation or œdema of the lungs, hydrothorax, or pleurisy with effusion, endo- or pericarditis, or valvular disease.

2nd, That it may be a continuous dyspnoea, or of paroxysmal character, resembling ordinary spasmodic asthma ; and that these types may occur in the same case, although, in my experience, the continued variety is more frequent than the asthmatic.

3rd, That these forms of dyspnoea may occur as the prominent symptoms of renal disease, and their origin may escape recognition if the urine be not carefully examined, as well as the heart and pulse.

4th, That Cheyne-Stokes respiration is often a symptom of Bright's disease, and that it obtains in both acute parenchymatous and in chronic interstitial nephritis.

5th, That while usually an evidence that the fatal issue is near at hand, it may occur in a chronic form, and may occur for weeks, perhaps even for years.

6th, That these several forms of dyspnoea just mentioned are very probably due to that defective renal elimination called uræmia.

7th, That in the acute forms of Bright's disease, serious or fatal dyspnoea sometimes, but rarely, occurs in connection with effusion into the submucous membrane of the larynx, so called " œdema glottidis."

## A PECULIAR CASE OF CEREBRO-SPINAL FEVER.

BY DR. HARRISON, SELKIRK.

*(Read before the Canada Medical Association, at Montreal, August, 1884)*

Those of you who were present at the meeting of this Association at Toronto in 1882 may remember that I read a paper on a peculiar form of fever that had for some time been rather too common in my locality. You may remember that its peculiarities were: That it came on gradually, after a period of rather indefinite malaise; that the symptoms at the commencement resembled typhoid—headache, pain in the back and limbs, fever of a remittent type, frequently slight epistaxis, slight tenderness of the abdomen, and sometimes slight tympanites. After running for about a week the symptoms would abate, and the patient appear to be on the high road to convalescence, when, just as the attendants were congratulating themselves on the result, they would find him gradually growing worse. The fever returned, and soon became distinctly intermitting, taking either the quotidian or tertian type, defying ordinary doses of quinia, and though very large doses, from 20 to 45 grains in an hour or two, would break up a paroxysm, the patient was no better, and the fever, in from twelve to twenty-four hours, invariably returned. The pupils were widely dilated; the pain in the head became more marked, and extended down the spine; the cervical spine became tender, the head drawn back, neuralgic pains in the extremities made the patient scream with agony, the temperature during the paroxysm running from  $101^{\circ}$  to  $105^{\circ}$ . The fever would slacken, change its type from quotidian to tertian, or *vice versa*, leave, so that the attendants would think the patient safe; again return, perhaps after the patient had seemed to be getting well for five or six days, until, after running a course of from ten to sixteen weeks, in the fatal cases (which were from half to two-thirds of those attacked), the patient, emaciated to a skeleton, with head drawn back and the ham-string muscles contracted until the heels were drawn up to the buttocks, pupils dilated until the iris was a mere ring, died from pure exhaustion.

During the last two years I have seen, in my own practice

and the practice of a couple of my friends, some six or seven cases, all presenting more or less of these characters. The last of these I saw first in the practice of my friend, Dr. Sherk of Cheapside, on the 4th of April last. In this case the patient, a girl of some 12 years, had taken sick the day before at school. Dr. Sherk found her looking very ill, as if she had been sick for a week or two. The next day her skin was covered with a dark-colored eruption of small purple spots, so that the friends thought she was breaking out with small-pox. My friend had very little experience with small-pox, and so sent for me. I found her lying nearly comatose, pupils widely dilated, temperature  $104^{\circ}$ , pulse 130, skin hot and dry, and she would just arouse enough on speaking sharply to protrude her tongue. The skin was covered with small purple spots; in fact, it presented all the symptoms of a violent case of the purpuric form of cerebro-spinal meningitis, and I expected it to run its course very rapidly. On the eighth day, I called and found our patient up, walking about, and the parents thinking that she was getting well. I told them not to feel too sanguine; that I should not consider her safe until convalescence had lasted for at least a week. In about three days she got worse, the fever returned as an intermittent of the quotidian type, with the characteristic of that type, of coming on some two hours later every day. During the paroxysm, the pupils were widely dilated, the head painful, the neck tender, the stomach irritable, and a remarkable nervous tremor affected the limbs. Even at the time of my first visit there was a marked tremor of the tongue on protruding it. These symptoms continued for some twelve weeks, the fever seldom very violent, sometimes absent for a day or two, sometimes severer, and sometimes very mild. When our patient seemed partly over it, her appetite returned, and though her stomach was weak, she had very little nausea; her mind was clear, she was cheerful and hopeful, and wished to be taken out. Her father took her in a carriage, at first a short distance, then farther, until he drove her to my house, nearly five miles, and for nearly four weeks we were in hopes she would pull through, though she did not gain much in flesh, and had always a good

deal of nervous unsteadiness. About fifteen weeks from the access, and between three and four weeks after the fever had left her, whether from some indiscretion in diet, or the natural effect of the disease, her stomach gave way; she could keep nothing on it. Her appetite was good, but food was very soon rejected. And even when the stomach was kept empty, about once in 24 hours, she would vomit a bilious, glairy mucus. The tremors became universal, affecting all the limbs. She became emaciated to the last degree, and for a couple of weeks before her death, eighteen weeks after seizure, Dr. Sherk tells me every muscle seemed to quiver as if under the influence of a galvanic battery.

The peculiar feature of this case was its sudden accession, the marked cerebro-spinal nature of the disease, and after so marked and violent an accession, its sudden subsidence and change of type to the chronic peculiar form of the disease I have been familiar with for some twelve or fourteen years. At the time this girl was taken, Dr. Sherk had a patient within less than half a mile that he had been treating for some six weeks for typhoid fever, and it was not until I described the ordinary course of this fever that he suspected its nature, though before the patient's death, and I think during the thirteenth week, its cerebro-spinal nature became manifest.

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## ON INFANT FEEDING.

By A. D. BLACKADER, B.A., M.D., M.R.C.S.

Instructor in Diseases of Children, McGill University.

*(Read before the Medico-Chirurgical Society of Montreal, Sept. 26th, 1884.)*

The question of infant feeding—how best to supply nourishment to infants deprived of their natural and best food, mother's milk—is continually coming before us for solution; and only slowly, through much theory and an infinite amount of trial, too often unsuccessful, are we groping our way to a successful answer.

During the past few years much study has been given to it, especially in Germany and America. Germany has had its special conference on the matter, which, after proclaiming the very

sensible fact that art could not, and they did not intend to try to improve on nature, set itself to inquire after some substitute in those cases where the mother's milk was wanting, and all the members agreed that some modification of cow's milk, to the complete exclusion of all the mercantile preparations, offered the best solution to the difficulty. Paris, too, has had its conference, but with little practical results. In America, before several of the prominent associations, during the past two years, Jacobi, Lewis Smith, Meigs and Leeds have lectured—men whose thoughts on the matter express a life study—and yet to-day I venture to say, if a number of medical men were asked to give their instructions as to the artificial feeding of an infant, the directions would be almost as various as the number of members present.

My object in asking your attention to it to-day is not for the statement of any dogmatic facts, for few at present are in a position to make that, nor with any hope that I myself may add to the general knowledge of the meeting, but rather to direct attention to an important subject often overlooked or neglected, and to suggest a few lines for discussion, in the hope that from the results of one another's experience we may each gain more light and perhaps harmonize our views where conflicting.

At the outset, we desire to recognize the fact that what one child may thrive on another may starve on; and while in this fact we see apparent idiosyncrasies, yet below it we would recognize as more powerful than idiosyncrasy, the tonic and stimulating effects on the digestive and nervous system of the infant of good fresh air, plenty of sunlight, and cleanliness. But it is a matter of everyday observation that most infants, if they have a good supply of mother's milk, thrive with even a comparatively moderate amount of these stimulants. To have a perfect artificial food, one that may be really a substitute for mother's milk, we should have one adapted not merely to the strong and well-circumstanced. Such is not an adequate test. The stomach of a strong lad may digest green apples without the faintest symptom of a colic, yet we would hesitate to add them on that account to our list of available children's foods.

No, the proper test is the delicate infant's stomach. If it is digested with comfort in that, we may be sure it will be in that of the stronger infant, and that both will thrive and the stronger infant be the stronger, because his stomach is not ordered to do heavy work.

Now, granted that good normal mother's milk is our standard, we would note, first, the very imperfect knowledge we have of its exact constituents. In the results published of even our best authorities, there is a wide divergence of the quantities of the several classes of constituents; and of the exact components, that are grouped under the heading of albuminoids and fats, our knowledge is very limited. I have placed before you the results of some of the later researches, those of Leeds, and König, quoted by him:—

## WOMAN'S MILK.

	MEAN.		MINIMUM.		MAXIMUM.	
	Leeds.	König.	Leeds.	König.	Leeds.	König.
Water .....	86.76	87.09	83.34	83.69	89.99	90.90
Fat .....	4.01	3.90	2.11	1.71	6.89	7.60
Milk Sugar.....	7.00	6.04	5.40	4.11	7.92	7.80
Albuminoids.....	2.06	3.88	.85	1.14	4.86	8.50
Ash.....	.21	.49	.13	.14	.35	?

## COW'S MILK.

Water .....	87.70	87.41	80.32	91.50
Fat .....	3.75	3.66	1.15	7.09
Milk Sugar.....	4.42	4.92	3.20	5.67
Albumen.....	3.42	4.52	2.76	12.44
Ash.....	.64	.70	.50	.87

We notice, on comparing these two tables, no very great divergence between the two milks; a good deal of variation in the albuminoids and fat; much constancy in the amount of milk sugar; and yet, supposing the albuminoids and fats and salts represent the same substances in both, not so much difference but that one might be substituted for the other without great harm resulting. But just there our knowledge is at fault, and just there our difficulty comes in, for, practically, we find that the two milks present entirely different results on the addition of coagulating acids—cow's milk, when so treated, yielding up four-fifths of its albuminoids as a rapidly-forming and firm coagulum, very slowly dissolved by the gastric juice; while human milk yields hardly one-fourth of its albuminoids in the form of a

slowly-forming and flaky coagulum, easily acted on by the ferments of the stomach, the remaining three-fourths remaining uncoagulated. Herein lies the difficulty, and one cannot but view with some apprehension the directions of a very eminent board in this city, issued last summer in a circular addressed to mother's, recommending pure, undiluted cow's milk for infants deprived of the breast. On what does this difference in these albuminoids consist? Lehmann thinks there is little difference in the albumens but what may be caused by the more or less alkaline state of the fluid. He says—"I have found woman's milk, when acid, yield a much thicker coagulum than when alkaline; and cow's milk, when alkaline, a much looser coagulum than when acid—facts which are of the greatest interest and value in relation to dietetics." But Beidert goes further, and insists on a much more radical difference in the caseins. My experience would say he was right, but perhaps some of our physiological chemists present may speak more authoritatively than myself on the matter. But besides this difference in the albumens, which must rank as the most important, we note also that cow's milk contains considerably less sugar of milk and a little less fat, so that when diluted this deficiency becomes very notable.

With these facts before us, we reach the question—How can we best alter cow's milk to assimilate it in all its important properties to mother's milk? Two ways have been proposed, both of which I have been trying with variable success at my dispensary. The first is the chemical or digestive method; the second is the mechanical. By the first, recognizing that the important difference between cow's milk and human milk lies in the different reactions of the albumens, this ingredient is partially or entirely peptonized, and thus prevented from forming these hard and indigestible coagula. Some preparations of pancreatin, with the addition of an alkali to the milk, is probably the best method of accomplishing this. Lewis Smith of New York gives this plan his cordial endorsement in an address delivered last spring. Keating of Philadelphia speaks more guardedly, but still recommends it, both referring to the *Extractum Pancreatis* of Fairchild Bros. & Foster.

I have notes of fourteen cases in which I used this preparation during the past three months. Of these, ten were cases of entero-colitis, and four of mal-nutrition simply. In two of those suffering from mal-nutrition, marked improvement took place; in the other two it was abandoned after a ten days' trial—in one case for Mellins' food, in the other for food prepared according to the formula given below. The ages of these infants were from three to seven months. Of the ten cases of entero-colitis, four were much improved—the motions, which had been curdy and undigested, became more homogenous-looking, and shortly regained their natural color; five I have marked not benefited—in two of these the diarrhoea seemed rather increased under its use; and the tenth case, which had presented slight cerebral symptoms before its use, died shortly afterwards in convulsions. The preparation used in all these cases was the *Extractum Pancreatis*. Theoretically this method seems almost perfect, and it was a matter of much regret to find one's expectations unfulfilled. My cases are too few in number, however, to draw any absolute conclusions from them. With the mechanical method of altering the albumen of cow's milk to render it more digestible, all of you are familiar, and I need say little. It came to us many years ago, with the emphatic recommendation of the late Dr. Meigs, in his well-known formula of a weak solution of gelatine and arrowroot added to the milk, with the further addition of a little sugar and cream. It was slightly altered by Jacobi, who substituted barley and oatmeal for the gelatine and arrowroot, and with him it still remains a favorite formula. Still later, its value has been theoretically proven by Leeds in a series of experiments, in which he effected the coagulation of the albumen in the presence of several attendants.

Dr. Arthur V. Meigs has lately insisted that in this dilution of milk the albuminoids should not exceed one per cent., which, he asserts, is all that human milk contains. He further asserts that the directions generally given to increase the strength of the dilution as the child gets older is a mistake, for human milk twelve months after delivery is very little altered from what it was at the end of the first month.



Though the albuminoid constituents in cow's milk form the chief difficulty in its assimilation by the child's stomach, the amount of the other constituents in the milk should not be overlooked, or the infant's nutrition will surely suffer. And as nature insists on keeping the sugar supply a constant quantity, it will be inadvisable on our part to let it fail. In our directions, cane sugar is generally ordered; but it may well be doubted whether it is wise that it should be so, and where practicable, sugar of milk should be directed. To increase the quantity of the fats, which are also deficient, cream may be used in place of a portion of the milk; and the whole fluid should be kept strictly alkaline by the addition of either lime-water, soda or potash. With regard to this mechanical method, I would ask an expression of opinion on the following:—

On the amount of dilution.

On the best practical diluent.

On the relative values of cane and grape sugar.

On a good working formula.

My own in use at the dispensary is as follows:—

Three tablespoonfuls of fresh milk, not boiled.

One tablespoonful of cream.

Two tablespoonfuls of lime water.

Four tablespoonfuls of barley water or thin gruel.

One teaspoonful of sugar of milk, and a minute quantity of salt.

The question here arises, can we not obtain the same results without trouble by ordering some of the many proprietary preparations, especially such as may be termed milk foods? The fact that they are proprietary, and, therefore, secret preparations, that analyses by many able chemists in the States have given very variable and not altogether flattering results, that they are liable to be old and musty, and that they are very expensive for the poorer classes, should, I think, make us resort to them with great caution. Of the milk foods, Nestlé's and Gerbers' are probably most used. Of those prepared from Liebig's formula, Mellin's is undoubtedly the best; and I have occasionally prescribed it with good results.

We all know that the feeding of starchy preparations to very

young infants is to be avoided, on account of their slight capacity of digesting it, and its liability to undergo fermentation in the intestines. That occasionally some do thrive in spite of our predictions to the contrary is probably also an acknowledged fact by us all, and must be explained by some unusual precocity of development of the pancreatic and intestinal glands in such children.

Another point that should, it seems to me, be kept prominently before the mother in feeding an infant is the amount of food it should be allowed to have. Biedert has published some very interesting facts in a long article entitled "Weight Studies." In this he gives the conclusions arrived at from the systematic weighing of infants, as to how much food a child should have to thrive on; and asserts that a bottle-fed infant thrives best when the minimum amount of food necessary for development is given to it. His studies were principally directed as to how much such required. His weighing showed that an infant of one month, 6-7½ lbs. weight, requires only 5½ to 6½ ozs. of cow's milk during the 24 hours; second month, 8 lbs. weight, 10-22 ozs. In the third month, 3 ozs. for every kilogramme the child weighs. This, I think, is very much below what is usually given. The principal conclusions Biedert has arrived at are as follows:—

- 1, Remarkably small amounts of nourishment, especially in the first few weeks, are sufficient for the good development of infants.

- 2, An increase in the amount of fat considerably above what is contained in dilute cow's milk spares albumen, makes digestion easier, and increases growth of child.

- 3, Sickly children must be fed with weaker preparations of milk, such as are suitable for infants of younger weeks.

- 4, Careful regulation is necessary, as the child has no instinct which guards against indigestible or over-feeding. In the first months, this regulation is of importance. Even breast-fed children are apt to drink too much then.

One other point on which I would make a very few remarks, since cow's milk is taken so generally as a basis for infant food. Are there any circumstances which affect it deleteriously, and,

if so, what are they? Routh, in his admirable work on infant feeding, quotes Dr. Meyer's experiments in Berlin to prove that almost invariably the milk of stall-fed cows is acid, in some cases very acid, even when quite fresh. The deleterious effect of ill-cleaned stalls on the udders of the cows is also well known.

A good many people in this city keep cows, and sell the milk to their neighbors around. Such milk must almost invariably be acid; and even if good and fresh in other respects, must require the addition of some alkali. Under all circumstances, care should be taken as to the feeding of these cows. Lately, also, a Dr. Brush of New York, who has given this matter a good deal of attention, claims that in cows, where the activity of the mammary gland is continued from parturition to parturition, through heat and pregnancy, and this through countless generations, the gland has become a secretory organ; and says that food which in other animals might cause a diarrhoea, in cows seldom produces this effect, but appears rather to stimulate the milk secretion, to the manifest detriment of its quality. He thus states the conditions which alter the wholesomeness of milk:—

1st, *Feeding*.—The sudden change from the dry food of winter to the free flush of grass, eating brewer's grains, poisonous weeds, decaying fruit and vegetables, and drinking poisonous, stagnant water.

2nd, *Genital Excitement*.—The milk is affected when the cow takes the bull. He says he has found from his own observation that the milk following the act is always decidedly acid, and in subsequent pregnancy, there can be no doubt that the nutritious quality of the milk is lowered. Again, a cow in heat may often worry and excite a whole herd. He once had the milk of such a one kept separate, and fed to a child in the neighborhood. The result was that the child was taken violently ill with vomiting and purging, which only ceased on the suspension of the milk.

3rd, *Different diseases to which the cow is subject*.—He mentions a case of traumatic garget (a common disease which disappears with little or no treatment), where the milk from an affected part of the gland for a number of days was stringy,

lumpy and pus like, but alkaline, while that from the other quarters was normal in appearance, but decidedly acid. Four days after the commencement of this condition he fed one of his children with some of the milk, with the effect of producing violent stomach-ache and purging.

There can be no doubt that great care should be taken in the feeding and management of cows whose milk is to be used for infant-feeding; and that all dairies, and all places where cows are kept, should be placed under frequent and thorough government inspection. It has for some time been a question with me, whether the milk of the large number of goats in the lower parts of the city could not be more utilized for feeding infants. Routh strongly recommends it; its freshness could always be relied on, and much less than that of cows is it liable to be affected with the weather, with changes of food, or with disease.

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## FUMIGATIONS OF GAS-COAL-TAR IN DIPHTHERIA AND CROUP.

BY GEO. W. MAJOR, B.A., M.D.,

Late Clinical Assistant, Hospital for Diseases of the Throat and Chest, London, Eng.; Out-door Physician to the Montreal General Hospital; Fellow of the American Laryngological Association; and Instructor in Laryngology and Diseases of the Throat, McGill University, Montreal.

The May number of the *Annales de l'Oreille, du Larynx, &c.*, contains a short account of a communication presented to the Academy of Medicine at Paris in March last by Dr. Delthil, of Nogent-sur-Marne (Seine) on the specific properties of fumigations of gas-coal-tar (*goudron de gaz*) in diphtheria and croup. Dr. Delthil's researches extend over a period of eight years, during which he used a variety of hydrocarbons capable of absorption into the system through the respiratory organs. Turpentine he found particularly efficient. The readiness with which its vapors are received into the body and excreted by the kidneys is a familiar fact, as evidenced in the instance of house painters. The various substances employed were all capable, in a greater or less degree, of destruction of germs, and their use was based on that property. The remedies, as a class, appeared to mate-

rially lessen the tendency to laryngeal developments. As the result of his experiments, a combination composed of gas-coal tar 200 grammes and turpentine 60 grammes was selected as the most efficient. This mixture is to be used as a fumigation, being first ignited. The combustion of this compound evolves volatile hydrocarbons and empyreumatic principles which are capable of undergoing pulmonary absorption without danger and without provoking the slightest irritation or tendency to cough. The author of the original communication claims that the formula recommended is particularly assimilable, and acts the part of a microbicide in the economy. He reports five cases of diphtheria treated by this method exclusively, with perfect success. Two of the cases were of a very severe type, necessitating tracheotomy, and ended in recovery.

Since the publication of his first report, Dr. Delthil announces in the *Deutsche Med. Zeitung* that he has used the fumigations in four additional cases of tracheotomy for laryngeal diphtheria, with one recovery. Dr. Féréol reports its use in one adult, with recovery. This gives us ten cases, with seven recoveries; in six of these cases, tracheotomy was performed, with three recoveries.

The amount of evidence offered is quite inadequate to found for this method the claim of being a *specific*, and it is only by recording the experience of a number of independent observers that any accurate estimate of the value of this treatment will ever be arrived at. This consideration has induced me to note six recent cases of diphtheria and croup, with a few observations on the means of employing, and the action of the drug, as seen in the several subjects.

CASE I—*June 26th.*—Wm. H., æt. 9, a well-nourished boy, with a well-developed membranous exudation on the pharynx, tonsils, velum and pillars. The previous month a younger child had suffered from diphtheria, and was, at the above date, under my care for paralysis of the soft palate. The treatment adopted was the hourly administration of full doses of chlorate of potash and tincture of the muriate of iron, associated with free alcoholic stimulants, demanded by a very

feeble and rapid pulse. The fumigations were administered every four hours, and were freely inhaled by the little patient without the slightest discomfort. The relief to breathing was very decided, and free expectoration followed each exposure. The membrane ceased spreading and rapidly disintegrated. By the fifth day the throat was entirely free from exudation.

CASES II AND III.—T. H. B. and M. D., aged respectively 3 years and 1 year, were seen August 10th, with catarrhal croup. There was much swelling, but no membrane was visible. Fumigations were ordered, with other treatment appropriate to the cases. The fumigations afforded such prompt relief that those in charge neglected the administration of any additional remedy. Expectoration became free, a watery discharge of the nasal mucous membrane was set up, and the improved breathing was very gratifying indeed. Complete convalescence took place in forty-eight hours.

CASE IV.—Ralph D., a strong boy of 3 years—taken suddenly ill with vomiting, high temperature, &c., on the morning of Sept. 23rd—was first visited by me Sept. 25th, 6 p.m. The fauces were occupied by a glistening greenish membrane. The vital powers were much depressed. Pulse 150, very feeble, and altogether an unpromising case. Treatment by iron and chlorate every hour; brandy, one dessert-spoonful every half hour until the odor became perceptible on the breath, when the interval was to be increased to one hour; fumigations every fourth hour. At noon on the 26th, the membrane had lost its green and shiny look, and had become of a dull and opaque appearance. After pushing the remedies for forty-eight hours, obstinate vomiting occurred, which necessitated the withholding of all internal administration for eight or ten hours. The fumigations were, however, persevered with. The remedies were again resumed at greater intervals. No fresh development had taken place, and though the prostration was extreme, calling for the stimulant in increasing quantity and at shorter intervals, the membrane was seen to have crumbled away appreciably. After each fumigation, expectoration

was freely induced, a flow of mucus from the nose occurred, an abundance of pale, limpid urine was voided, and sleep of a quiet, restful character supervened, lasting during the entire process. The two nurses in charge also remarked the action of the fumes on themselves, as increasing the renal discharge.

CASE V.—W. S., a delicate-looking lad of 7 years, was first seen on the morning of the 25th September. Of much milder type than the last. The exudation was of the wash-leather order, and occupied the pharyngeal wall and tonsils. Pulse 140. Had been taken ill on the morning of the previous day. The usual internal treatment was adopted, with fumigations every four hours. The child so fully appreciated the relief afforded by the latter, that no persuasion was necessary to induce him to freely inhale the fumes. The improvement was steadily maintained, and on the 29th the fumigations were suspended, as all membrane had vanished. The pulse sensibly diminished in frequency, and increased in volume and strength under the judicious use of brandy.

CASE VI.—M. McE., a little girl of 4 years, complained of a sore throat and feeling ill on the morning of September 27th. The first visit was made at mid-day on the 28th. Membrane was found on uvula and tonsils. No fever, pulse 140, and weak, glandular swelling very marked. The usual internal remedies and fumigations every four hours were prescribed. When seen the same evening, six hours after commencing the treatment, the membrane had visibly increased, but there was no constitutional change for the worse. She expressed herself as relieved by the fumigations, which latter induced a peaceful slumber. On October 2nd, the membrane had disappeared altogether, and the glandular enlargement had almost entirely subsided.

From the foregoing limited experience of the gas-coal-tar treatment as applied to diphtheria and croup, I do not find myself in a position to speak decisively of it as a *specific*; if for no other reason than that I associated with it a treatment that, on the average (when pushed heroically, and, especially if conjoined with the free administration of stimulants), has yielded

me good results. This much, however, I am prepared to say, that at a reasonable time after the commencement of fumigations the membrane not only ceased spreading in each instance (a happy issue not always seen after the best directed means heretofore employed), but also in 24 hours showed signs of disintegration, for it literally crumbles and does not exfoliate, as under other conditions. The congestion of the adjacent parts was sensibly lessened, pain and swelling were quickly diminished, expectoration was rendered free, and though the fumes were as thick as midnight, they were freely inhaled without producing the slightest tendency to cough or other discomfort. The nasal secretion was increased, the action of the kidneys stimulated, and the odor of violets was quite appreciable in the urine. Sleep was induced, and continued for hours if undisturbed.

As to prophylaxis—a not unimportant feature where diphtheria is concerned—in no instance did any contagion occur. The property of tar as a disinfectant has been long known; its use in the navy dates very far back; vessels were purified by lowering into the hold a bucket containing it, into which a few links of chain at red heat had been dropped.

The success of a method of treatment, based as this is, on the absorption of the fumes by the air tract, must largely depend upon the thoroughness with which all details are carried out. The frequency of the application, the quantity of material employed, and the length of time of each exposure, must be regulated by the gravity of each case and the urgency of any special symptom. The danger of fire must be reduced to a minimum by enclosing the vessel containing the burning fluid in one of larger area, and by withdrawing all inflammable material to a safe distance. The caution to avoid adding to the burning compound any fresh material should be unnecessary. At each sitting, from 4 to 8 ounces should be used, and from 7 to 12 minutes will be required for its combustion. The apartment, the door of which should be closed and further protected by being shut on a sheet, will remain filled with the fumes for four hours at least. The introduction of a metal cylinder, with metal tubing attached, to be used as a respirator, would be a great



boon, and rob the remedy of its one great objection. I refer to the grimy appearance of the patient and his surroundings, a feature insignificant in itself, if further experience should demonstrate the efficacy of the method.

*Post-scriptum.*

CASE VII.—By far the most remarkable instance of the effects of the gas-coal-tar treatment occurred in the case of an infant of 13 months. The first indication of constitutional disturbance was perceived on Sept. 28th, and the illness was ushered in with fever and vomiting. On the morning of the third day pronounced hoarseness and difficult breathing became prominent symptoms. The physician in attendance attributed the condition to teething and cold, and adopted a line of treatment in accordance with his views. On the morning of the seventh day of the illness (the fifth after the development of laryngeal symptoms) my services were called into request. The child was found with a very frequent and feeble pulse, no elevation of temperature, and breathing of a very distressing and stridulous character. The upper throat, on examination, showed no swelling, little or no congestion, and no signs of exudation. A forcible examination of the larynx, however, displayed a well-developed and evenly-distributed membrane lining that cavity. The case was declared to be of a very serious nature, and the treatment so highly lauded by Delthil, in laryngeal complication, was recommended to be followed. A small room was selected for the carrying out of the fumigations; these were to be repeated every third hour, and four ounces of the compound was to be consumed on each occasion. The child was to be exposed for 45 minutes continuously to the action of the vapor. On the following day I made my second visit, and found that eight fumigations had been administered, making in all six hours of active exposure, with no apparent benefit to the child. Supra-sternal and supra-clavicular depression was marked, and altogether the case presented a very hopeless prospect. Tracheotomy was suggested, and the chances of success or failure fairly explained, but was declined. The fumigations were not continued, and no

other treatment substituted. On the following day I returned by appointment to make a *post-mortem* examination of the laryngeal condition (fully expecting a fatal issue), but was most agreeably surprised to find the child not only alive, but showing marked improvement in breathing. It appears that shortly after the abandonment of the fumigations the child coughed up a quantity of disintegrated membrane, and improvement steadily advanced. The fumigations were now renewed at intervals of four hours, with exposures of from 20 to 30 minutes. The bronchial congestion suggested mild expectorants, which were accordingly ordered. Brandy in teaspoonful doses every hour in addition, with milk and beef-tea for nourishment. On the following day (the tenth of the illness and the eighth of laryngeal signs) the improvement was very marked indeed. The fumigations had been faithfully applied, and the child, though extremely weak, was taking the brandy and liquid nourishment freely and was disposed to play. The voice and cough were still croupy, the breathing at intervals slightly labored, but sleep had been frequently indulged in, and had lasted for an hour at a time. A good recovery resulted, with some paresis of the soft palate.

This last case, the only one of diphtheria treated solely by fumigation, was of a very severe type. The following observations on the action of the drug were made: No cough was produced by the dense smoke; the urine, though very thick immediately previous to the commencement of fumigation, cleared rapidly and became pale, limpid, and larger in amount; the odor of "violets" was also noted; the evacuations from the bowels lost their offensive smell, became free and of a black and tarry consistence. During the fumigations the breathing, even at the critical period, seemed more free and deep, and the expectoration was rendered more easy and abundant; a gentle slumber followed each exposure.

The history of this case vindicates in a peculiarly timely manner the good opinions advanced for this treatment by its originator, and cannot but inspire, with some confidence of success, the further trial of this method.

CASE VIII.—W. S., a younger brother of case V, was first seen Oct. 9th. The child had been unwell for a day or two previously, and on the evening of the 8th complained of some pain in swallowing. At 9 A.M. on the following day he was seized with a *fit*, lasting upwards of an hour, and at the time of my visit (three hours later) he was quite dazed and apathetic. On examination of the throat, a well-defined and evenly-distributed membrane was observed. Fumigations were ordered every four hours, with continuous exposure. The usual internal remedies and free stimulation were also conjoined. Daily improvement was perceptible. The membrane steadily diminished, as also did the glandular swelling, which latter was considerable. By the fourth day, recovery had so far advanced that the fumigations were desisted from, and a speedy convalescence ensued. As perfect isolation had been insisted upon during the illness of the first child, the second development may fairly be ascribed rather to exposure to a common source of infection than to direct contagion.

CASE IX.—The last case I here record, though not a successful one, illustrates the influence of the gas-coal-tar treatment in laryngeal diphtheria, accordingly I am persuaded to append a concise report:—

A delicate child of 13 years, with, I believe, some heart complication, and but recently recovered from a severe pneumonia, was first seen by the family physician on the morning of Oct. 18th, when an exudation on both tonsils was discovered. I saw the child in consultation on the night of the 21st, being called in owing to laryngeal obstruction. The breathing was very much embarrassed. On laryngoscopic examination, an exudation of the *mildew* type was found to line the larynx and trachea. The pulse was small, very frequent, and feeble. The usual internal treatment was followed, as also free stimulation. The condition was altogether desperate. Fumigations were ordered every second hour, the child to be continuously exposed. The increase of laryngeal exudation was apparently controlled by this treatment, as also, indeed, was the development in the upper throat, which latter showed signs of

disintegration. The feeble constitution, however, succumbed to the intensity of the poison, 34 hours after the commencement of the fumigations, by cardiac failure, the result of the depressing action of the virus on the nerve centres. In this fatal case, there were not any signs of deficient oxygenation, notwithstanding the fact that the diaphragm, in its *open and shut* movements, resembled rather the action of a valve in mechanics than a muscle of the human frame.

At the suggestion of the writer, an apparatus has been prepared for the use of this compound, which, to a great extent, overcomes the objection that otherwise would prevail against its adoption. It consists of a rectangular box of galvanized iron of about 18 inches by 2 feet in dimensions; a door opens on one side to admit of the introduction of a metal vessel containing the compound to be consumed; at a distance of an inch from its lower border, numerous small openings are made, to facilitate perfect combustion, by the free entrance of air. After combustion is complete, these orifices may be closed by small traps provided for the purpose, and attached above by rivets, which permit of free revolution, and thus prevent the escape of the fumes into the apartment. A tube 2 inches in diameter, of the same metal, emerges from one side, near the top, for about 12 inches; this latter is provided with a damper much the same as that in use in the ordinary stove-pipe, which may be used either to shut off the vapors altogether or to regulate the amount required for inhaling. The apparatus is further completed by the attachment of a piece of duck-hose fitted over the metal pipe, and supplied with a mouth and nose piece of padded leather, somewhat similar to an æther inhaler. Rubber tubing will not answer the purpose, as it is readily acted upon by the fumes. The whole cost of the apparatus is about three dollars.

## QUARTERLY RETROSPECT OF OBSTETRICS AND GYNÆCOLOGY.

PREPARED BY WILLIAM GARDNER, M.D.,

Professor of Gynæcology, McGill University; Attending Physician to the University Dispensary for Diseases of Women; Physician to the Out-Patient Department, Montreal General Hospital.

Since my last report, the period of greatest activity in gynæcological circles has come and gone. The British Medical Association and the International Medical Congress, each with an obstetrical and gynæcological section, and the American Gynæcological Association, have held their meetings. It is impossible, and perhaps undesirable, within the limits of a report on the progress of obstetrics and gynæcology intended mainly for general practitioners, to present any adequate or complete idea of the work being done in this department of medicine and surgery. I offer a resumé of the more important papers.

## INTERNATIONAL MEDICAL CONGRESS—SECTION OBSTETRICS AND GYNÆCOLOGY.

Howitz of Copenhagen read a paper on *The Diagnostic Difficulties in cases of Hypertrophy of the Cervix Uteri*. When the supra-vaginal part of the cervix is elongated, the uterine diaphragm is moved upwards, the internal os is above the brim of the pelvis, and the body of the uterus is completely within the abdominal cavity. If now the uterine body be expanded by a tumor or pregnancy, the diagnosis may become very difficult. The uterine tumor is unusually moveable, and may thus be easily confounded with an ovarian tumor with long pedicle. Moreover, it may be fluctuating, almost undulating, without the existence of hydramnios. The cervix then is hard, the isthmus soft, and then above it is the body of the uterus, soft, fluctuating and moveable. Mistakes are easily made. If the sound is passed, abortion is apt to result. The author reported four cases of this combination of hypertrophy of the cervix, with enlargement of the corpus uteri. Three were pregnancy and one a myoma. In all, the diagnosis was very difficult. Martin of Berlin and Priestley of London agreed with the author as to the difficulties of diagnosis. The practitioner can never be too careful in the

diagnosis of pregnancy. In doubtful cases, he must insist on sufficient time being allowed him before giving a positive opinion.

Koeberlé of Strasburg discussed the *Treatment of Fibromyoma of the Uterus by Laparotomy*. The indications are : 1, Excessive and prolonged bleeding, and rapid and steady growth of the tumor. 2, An age at which the patient is still far removed from the menopause. 3, It is unfavorable if the tumor be situated in the lower zones of the uterus, or between the layers of the broad ligament. 4, It is also indicated when, from a variety of circumstances, the tumor renders life intolerable. He thinks the operation contraindicated when there are extensive vascular adhesions between the tumor and the abdominal wall ; when the tumor is impacted in the pelvis ; and when ascites, or incurable disease, or diseases which may interfere with the cure, are present.

As regards the method of operation, he makes his incision in the middle line. If it must extend beyond the navel, he excises this. Pediculated tumors are tied singly or in sections, cut off, and the pedicle dropped. Comparatively small differentiated sessile tumors are enucleated and the wound closed by deep concealed sutures. This method, which he has employed since 1878, does not certainly protect against bleeding. The larger tumors can only be removed by partial or total extirpation of the uterus. These latter may be divided into two classes—those in which the tumor reaches only to the level of the internal os and does not extend within the folds of the broad ligament, and those which involve the cervix. Koeberlé's usual method in such cases is to isolate the uterus on both sides by ligatures, to throw two ligatures round the cervix, tighten them with serre-nœuds, cut off the uterus and tumor, and then fix the stump in the abdominal wound by needles transfixing it. The author has operated in this way about fifty times. The mortality is about the same as that of ovariectomy, with extra-peritoneal treatment of the pedicle—5 to 10 per cent. It were better to drop the pedicle, but he fears the hæmorrhage which might thus occur undetected. When the tumor is between the layers of the broad ligament, the operation is almost always fatal. In such cases,

removal of the appendages is to be preferred, but is often difficult, sometimes useless, as, for example, when occlusion of the bowel indicates operation. Schröder's operation, tempting as it appears, is too difficult and dangerous, except for rare cases. For the toilette of the peritoneum he uses napkins, not sponges. All raw surfaces are lightly dusted with iodoform, as also the surfaces of the abdominal wound, which is then covered with lint.

Apostoli of Paris read a paper on *The Electrical Treatment of Uterine Myoma*. The author's method differs from former methods, in that the constant current only is employed; of great intensity, reaching even to 100 milliampères, and the active pole is introduced within the uterus. The positive pole is thus used where bleeding and mucous discharge are the prominent symptoms, and the negative pole when dysmenorrhœa and cellulitis complicate the case. The tumors shrink, although they do not disappear, and the patients are restored to health, as the author has shown in more than a hundred observations.

Wiedow of Freiburg read a paper on *Castration in Uterine Fibro-myoma*. The main object of the paper was to demonstrate the after results of the operation. The principal questions are the effects on bleeding and size of the tumor. He had collected 149 cases. Of these, 17, or 11 per cent., died from the effects of the operation. Only those whose condition was known one year after operation were reported upon. These numbered 49. In 36, menopause and diminution in size of the tumor were noted. In 3, menopause, the condition of the tumor unnoticed. In 8, diminution of the tumor, with slight regular or irregular bleeding. In 1, slight bleeding at intervals of three months, without any account as to the size of the tumor. In 1, slight bleeding at intervals of three months, without notice of the size of the tumor. Of 12 cases in which the tumor extended to the umbilicus or beyond, in 10, menopause with diminution of size of the tumor; in 1, irregular, slight bleeding, the tumor slightly diminished; in 1, after a few months menopause, there occurred regular inconsiderable discharge of blood, with lessening in size of the tumor. The author thinks that as a result of those obser-

vations, the large size of the tumor cannot be considered an objection to the operation, and that it is to be preferred to myomotomy, with its mortality of 33 per cent. He would limit myomotomy to fibrocystic tumors and to pediculated subserous growths. The figures he has given show that it is not necessary, as Lawson Tait asserts, to remove the Fallopian tubes. In many of the cases reported, the tubes were left, with the result of menopause and shrinking of the tumor.

During the discussion, Olshausen and Spencer Wells did not agree with Koeberlé in considering impaction of the tumor in the pelvis or ascites as contraindications to operations. These conditions strengthened the indications. Vascular parietal adhesions cannot be diagnosed and are not contraindications. Olshausen considers the greatest difficulties to exist in subserous tumors and myomas of the cervix. When, in a case of subserous development, the base of the tumor cannot be reached, ligatures are first to be applied to all available points. The peritoneum is then incised and the tumor shelled out. This can often be done without much bleeding. Sometimes one must be content with partial operations, as in ovariectomy. The intra-peritoneal treatment of the pedicle he believed to be that of the future. Drainage he considers objectionable.

Spencer Wells said the contraindications mentioned by Koeberlé and Olshausen were of much less importance when antiseptic precautions were used. An important part of these precautions he believed to be the cleansing of the vagina and plugging with iodoform gauze. He has not used drainage since 1878.

Hegar agreed with Wiedow in the question of castration *versus* myomotomy. The intra-peritoneal treatment of the pedicle, he believed, would be the best if Schröder's method could be trusted for security against bleeding, but this is not the case. The extra-peritoneal method has given the best results.

Knowsley Thornton recognizes only the following as contraindications: Malignancy, important diseases, as nephritis, and enormous size of the tumor, cases in which the woman may be



considered as only an appendage of the tumor. In tumors of the size of a child's head, he prefers castration. In very large tumors, he considers the latter operation very difficult and its utility questionable. Enucleation by the vagina is to be avoided, unless nature have begun the process. The extra-peritoneal treatment of the pedicle with Koeberlé's serre-nœud gives, as yet, the best results. He never uses drainage.

Martin of Berlin considered that these tumors ought to be removed, not only on account of present symptoms, but to anticipate necrosis or degeneration. The operation ought to be completed by bringing the serous membrane over the stump or pedicle and complete closure of the abdominal wound.

Howitz (Copenhagen) is decidedly opposed to too frequent laparotomy in uterine tumors. It is only rarely indicated, and supra-vaginal amputation of the uterus is very dangerous; its mortality is at least 35 per cent. The bleeding usually depends on disease of the endometrium, and it may be frequently obviated by curetting. If this or other intra-uterine treatment fail, then castration may be attempted. Supra-vaginal amputation ought to be reserved for those cases in which rapid growth indicates it, and in which ergot and electricity have failed.

Kaltenbach (Giessen) drew attention to the dangers of extensive thrombosis of pelvic and femoral veins. He believes that the extra-peritoneal method protects best against sepsis and bleeding. He had tried Schröder's method four times, but was obliged ultimately, in two of the cases, to resort to the extra-peritoneal method to arrest hæmorrhage.

Sänger (Leipzig) spoke in favor of the intra-peritoneal method. In four cases he had employed a combination of Schröder's and Olshausen's methods. The elastic ligature should not be drawn too tightly. All recovered, three very smoothly.

Koeberlé replied by saying that the contraindications laid down by him he did not regard as absolute. He never employs drainage.

It will thus be observed that while the majority of the great authorities on this subject agree that the operative treatment of uterine myoma may be greatly extended, there is, perhaps, as

much difference of opinion as a year ago with reference to the details of the methods of operation. It is often the case with the originator of a new procedure that he claims better results than his imitators. So it is with Schröder's myomotomy. A majority of the speakers had to say that they found it uncertain in staying bleeding. The majority, while agreeing as to the value of removal of the appendages in small tumors, asserted that it is a most difficult operation in large tumors, and often is useless in securing arrest of bleeding and shrinking of the tumor. Authorities were nearly equally divided as to whether the intra- or extra-peritoneal method of dealing with the pedicle were the best. It is probable that the majority of authorities at the congress and absent favor the extra-peritoneal method.

Halbertsma of Utrecht read a paper on *Albuminuria Gravidarum*. The author reasserted his well-known opinion long ago promulgated that the albuminuria of pregnancy is essentially due to compression of the ureters. In greater detail his views are: 1, The facts do not bear out the theory that the cause of albuminuria of pregnancy is reflex contraction of the renal arteries. 2, The albuminuria of pregnancy is observed with especial frequency when there is a want of relation between the size of the pregnant uterus and the abdominal cavity. 3, The cause of the albuminuria of pregnant women is most frequently distension and compression of the ureters.

Ingerslev of Copenhagen admitted that compression of the ureters was really the cause of puerperal convulsions in some cases, but it was to him difficult to explain why convulsions were not more frequent. Stadfeldt, 23 years ago, had shown that the ureters, especially the right, are often dilated. And with still greater reserve must the theory of the causation in general, of the nephritis of pregnancy by compression of the ureters be accepted. The newest researches on this subject show how dark is still the pathogenesis and etiology of this disease. The presence of albuminuria with convulsions teaches us little. The frequent chronic course of albuminuria after labor harmonizes but little with the hypothesis of a suddenly removed pressure such as occurs after labor. Moreover, careful examinations of a

large number of pregnant women have not furnished proof that albuminuria gravidarum is especially apt to occur under conditions such as produce pressure, and under which eclampsia often occurs, as, for example, first pregnancy, hydramnios, twin pregnancy, &c.

Halbertsma, in reply, wished emphatically to express the opinion that usually there is no kidney disease, but only compression of the ureters; and, further, that the condition of the kidney is not one of congestion, but anæmia. The remark that, if his explanation were correct, all pregnant women ought to have eclampsia, cannot be borne out. It had also been said that the theory of compression of the ureters is too simple. This is no argument. He believed in the maxim: *Simplex veri sigillum*.

Martin of Berlin read a paper on *The Diagnosis and Treatment of Diseases of the Fallopian Tubes*. This is a subject too little discussed in text-books. It is, however, of great importance. He believed the diagnosis to be not nearly so difficult as generally supposed. The bimanual method of examination, especially with anæsthesia, will usually render possible a careful examination of the tubes, particularly when diseased. In order to be sure that the tubes really are felt, one must trace their connection to the uterus. The treatment must be medical as well as surgical, as extirpation of diseased tubes appears to be very dangerous. While of the last 100 ovariectomies the author had lost only 3; of 18 operations for pyosalpinx 5 had died, of which, at least 4 of sepsis. The results of the medicinal and dietetic treatment were often much better than usually supposed. In many cases he had seen improvement, and in a few, cure even of sterility.

Kaltenbach agreed with the reader of the paper as to the frequency with which the normal tubes can be felt during anæsthesia. When distended they are more easily felt. The closed abdominal end sometimes forming a sac projecting into the abdomen; sometimes it exists as a series of little tumors strung together. An important point in the diagnosis appears to be the occurrence of colicky pains at the site of the tumor—a symptom which can only be produced by a muscular organ.

Sänger of Leipzig emphasized the importance of gonorrhœa with reference to the causation and diagnosis of diseases of the uterine appendages. Noeggerath's views on this subject had not received sufficient attention. He had operated four times for this disease; all were successful. He thought that extirpation of the uterine appendages was a better name for the operation than salpingotomy.

Hegar presented one of the most important papers in this section of the congress. The subject was, *Castration as a Remedy for Nervous and Psychological Complaints*. The frequency with which the ovaries have been removed in recent years, and for a variety of symptoms, demands the most serious consideration, lest, by reason of defective knowledge or imperfect conception of the object to be attained, women may be mutilated by an operation which certainly carries with it dangers to life. No living gynæcologist is perhaps better fitted, by reason of large experience of the operation, extending over several years, to introduce a discussion before a representative body of gynæcologists such as constituted this section of the congress. The author began by remarking that by castration two objects may be in view. One is the removal of a diseased organ; the other is the anticipation of the menopause. The first needs no explanation. Of the second, we, however, know very little; we know, it is true, that menstruation ceases, that the uterus undergoes involution, but of the consequences on the body generally we know very little, so little that from it we can derive no indication for the operation. From what has been said it will follow that such an operation, in the absence of probable anatomical changes in the sexual organs, is not justifiable. In the case of association of sexual disease and a neurosis, the question will arise whether or no the neurosis depends on that organic disease. In this connection great weight has been laid on the site of the neuroses. The so-called lumbar and spinal symptoms, the sacralgia, pain and other abnormal sensations in the abdomen and hypogastrium, external genitals, rectum, hips, thighs, and urinary organs have been held to be due to sexual complaints. But the lumbar portion of the cord may be irritated

by some other part of the nervous centres, or by peripheral irritation, and then secondarily a sexual complaint be set up. It is quite true, however, that very marked evidence of derangement of the lumbar portion of the cord in general indicates affection of the genital apparatus. The chronological relation between the phenomena of the neurosis and the sexual complaint must also be reviewed. The intensity of the nervous affection frequently, however, does not correspond with the extent of the pathological changes in the sexual organs. The sexual disease having excited the neurosis, it does not always follow, although, certainly, it does so occasionally, as in the case of rectification of a flexed uterus, that the neurosis shall thereupon disappear. When, therefore, it has been proved that a causal relation exists between the neurosis and the genital affection, it does not follow that by castration the complaint shall be cured. The author then, in the following manner, formulated what he considers to be the indication for castration in neurosis: A neurosis depending upon a lesion of the genital organs indicates the operation when it (the neurosis) cannot be cured or materially relieved by milder measures, and when life or psychical health is endangered, or when occupation or enjoyment of life is prevented. He has collected the results of his operations for neurosis, restricting his conclusions to those under observation for a long period of time after the operation. They have been very favorable. Unfavorable results were proportionately very few. The causes of the unfavorable results are most important. Most frequently it was some circumscribed inflammation which either existed previously or was a result of the operation. It is to be supposed that the nerves of these nodules of exudation, which usually are at the site of the ovarian pedicle, are irritated, and the irritation is conveyed to the centre, as is the irritation of ovulation. The patients require long watching, as the old neuroses have produced certain changes which can only be removed by time, and the disturbances attendant on menopause are very apt to concentrate themselves on the already affected part of the nervous system. Ill results are sometimes due to the not very rare ventral hernia. In conclusion, the

author pointed out the necessity for the study of neuropathy in connection with gynæcology.

*Discussion.*—Koeberlé thought that castration for nervous complaints is very rarely indicated. Neuroses depend much more frequently on social conditions, defective education, &c., than sexual complaints. He wished to ask Sir Spencer Wells if he had frequently observed neuroses in patients suffering from ovarian cysts.

Sir Spencer Wells said that it was exceptional to see neuroses in the subjects of ovarian tumor. The majority of his patients had presented no symptoms specially referable to the nervous system. He had four times removed ovarian tumors from insane women. In two of these decided improvement had resulted. In two cases of ovariectomy performed in sane women, insanity supervened. He had not seen any relation between diseases of the nervous system and ovarian diseases. Hysteria in young women proceeds much more frequently from defective education than ovarian disease. To extirpate the ovaries except for decided tenderness or unmistakable ovarian disease he considered as unjustifiable as to remove the testicles from insane men.

Martineau of Paris believed that primarily a neurosis existed, and that some uterine disease aggravated it. If, then, the metritis were treated, the neurosis either subsided or disappeared.

Olshausen of Halle finds it very difficult in certain cases to decide whether castration is indicated or no, whether the neurosis depends on sexual disease, and whether or not improvement in the symptoms is to be expected from cessation of ovulation. He had operated in four cases for nervous or psychical complaints. In three the effect of the operation was *nil*, although in one case the symptoms seemed specially to depend on menstruation. In the fourth there was no cure, but decided improvement. The speaker thought that the indications for castration in nervous diseases cannot yet be precisely formulated.

Gusserow of Berlin coincided in general with the opinions of Spencer Wells and Olshausen. It is of the greatest importance to know how long after the operation recovery lasts. A tem-

porary improvement in nervous and hysterical complaints may result from any treatment.

Kugelman's (Hanover) experience is that nervous diseases much more rarely depend on disease of the ovaries than upon anæmia, uterine disease, parametritis, etc.

Gordon (Portland) protested against the idea that the operation must be restricted to cases in which an examination reveals disease of the ovaries. The operation had often been performed because of symptoms, without physical signs, and yet the organs were found to be diseased, as, for instance, cystic degeneration.

Priestley (London) had never yet found the operation to be indicated. The disease is usually situated in the nerve-centres, the sexual symptoms are only local manifestations of this, and the general condition of the patient is often aggravated, rather than improved, by extirpation of the ovaries. The removal of these organs without palpable disease is not permissible. But even when such disease exists, it can in many cases be relieved by suitable medical and moral treatment. In many cases of neurosis, associated with disease of the ovaries, the Weir-Mitchell treatment had done excellent service.

Engelmann (St. Louis) defended the operation against the assaults that had been made against it. When all other remedies have been tried, when the ovaries are diseased and appear to be the centres whence the symptoms proceed, then the operation is justifiable. The fact that large ovarian tumors did not produce nervous symptoms proved nothing. Very often chronic irritation or unimportant pathological change excited violent nervous phenomena.

Knowsley Thornton read a paper on *Early Ovariectomy*. He first discussed the question of tapping. Men like Spencer Wells and Keith are in favor of it; others are opposed. What advantages does tapping present to us? It cures certain cases of cyst of the broad ligament, and a few very much more doubtful cases of ovarian cyst. They very often fill again, and the cysts of the broad ligament often become papillomatous and infect the peritoneum by the unhealed puncture in the cyst or otherwise.

For diagnosis, exploratory incision is not much better. For if the expert operator escape the dangers of tapping, as bleeding, inflammation and sepsis, he cannot prevent the small cells of papilloma escaping and flowing over the peritoneum. It is worthy of remark that Keith, who taps so frequently, complains of the frequency with which cases of successful ovariectomy die subsequently of malignant growths. The author himself, a few years ago, removed a cyst whose inner surface was covered with papilloma. None of the contents escaped within the cavity of the abdomen, but the patient died a few months later of cancer, which did not proceed from the incision, but from the scar of a previous tapping. He had done in all 423 ovariectomies, with 40 deaths, of which 12 were caused by previous tapping. He considers tapping to be a crime (*verbrechen*), there are few exceptions. We must not only give up tapping, we must operate early, so that the numerous dangers which accompany ovarian tumors may not develop. But the operation must not be done too early—not while the tumor is still in the pelvis, as then the operation is very difficult; the cicatrix of the abdominal incision is not so solid as when the abdominal wall has been previously expanded, and the diagnosis between small ovarian cysts and small fibro-myomata is too difficult to decide. It is only when it causes bleeding or other grave symptoms that the small tumor must be removed. It ought, however, always to be removed as soon as it grows large enough to distend the abdominal wall a little, so that the incision may be over the cyst-wall and not over intestine. Any delay after a certain point brings with it dangers. There is the same danger as after tapping, namely, that of malignant degeneration and rupture, or otherwise infection of the peritoneum. Of the first 400 of the author's ovariectomies, 40 had free cyst fluid in the abdominal cavity. Of these, 3 died. Of the remainder, 3 now suffer from peritoneal cancer; 3 have already died of this disease; 1 died of general sarcomatosis; 1 with the suspicion of malignant cerebral tumor, and 3 of whom the author can get no report, and who are probably dead. Of the 400, there were 34 cases of twisting of the pedicle, with 4 deaths, which is a large proportion. The formation of adhesions,



another frequent result of delay, is usually of no great importance, but they annoy the patient and may cause internal strangulation. The adhesions, by reason of the increase of the nutrition of the tumor which they lead to, may favor degeneration. As the tumor increases, general health fails, the abdominal viscera are compressed, and nutrition interfered with. There can be no doubt that when we cease to tap and operate early, the already brilliant results of ovariectomy will be rendered still more so.

Howitz (Copenhagen) agreed with the author in the main, but he believed there are not a few cases in which tapping is a useful preliminary; as in very large tumors; to gain time; in acute diseases; or to enable the patient to travel to the operator. As regards the time of operation, he feared that some might go further than Mr. Thornton, and operate on all tumors as soon as diagnosed. It is not to be forgotten that women with small ovarian cysts may become pregnant.

Sir Spencer Wells defended tapping in rare cases, where an ovarian cyst, or cyst of the broad ligament, is intraligamentous. There is sometimes an advantage to be gained in tapping a few days before operation. Then there are not very rare cases in which the patient refuses ovariectomy and desires tapping. The mortality after tapping is still less than ovariectomy, 4-8 per cent.

This report contains a resumé of the more important papers read in the obstetric and gynecological section of the congress. It has been directly prepared from the *Centralblatt für Gynäkologie*, Nos. 36, 37 and 38, 1884, which contains a much more satisfactory report than any English periodical. As the space at my disposal has been already exceeded, I am obliged to defer reports of the work of the other societies to a subsequent number.

## Reviews and Notices of Books.

**Practical Manual of Diseases of Women and Uterine Therapeutics, for Students and Practitioners.**—By H. MACNAUGHTON JONES, M.D., M.C.H., F.R.C.S.I. & E., Examiner in Obstetrics Royal University of Ireland, &c. New York: D. Appleton & Co.

The text-books on this subject are now certainly sufficiently numerous to afford the student ample room for exercising a choice in their selection. In this case, the author informs us that from his experience most of the standard works are found by students too voluminous, and his view has consequently been to present them with one which, whilst not omitting anything essential, shall yet be quite within the compass of the time which they will probably be enabled to devote to this branch. The conciseness which this involves necessarily prevents it from being in any wise a competitor of the more expanded and more complete treatises of Barnes, Thomas, Hart & Barbour, and others. It has evidently been carefully prepared for the purpose intended, and, we have no doubt, will be fully appreciated by those for whom it is intended.

**Lectures on the Principles of Surgery.**—By W. H. VAN BUREN, M.D., LL.D., formerly Professor of the Principles and Practice of Surgery in the Bellevue Hospital Medical College, &c. Edited by LEWIS A. STIMSON, M.D. New York: D. Appleton & Co.

These lectures were delivered at the Bellevue Hospital Medical College, in which the late lamented Van Buren held for years the chair of surgery. In his preface, the editor explains that the book is offered, not as a complete treatise on the principles of surgery, but simply such a representation of them as the author thought best fitted to be of service to the student, and to the practitioner who returned to take his place upon the benches of the lecture-room. We think it is well that this explanation was made, because we must confess to some feeling of disappointment in perusing the pages of this book. There is a

want of finish about it, and an almost entire absence of illustrations, which latter are so necessary and important, especially to students. However, there is much in the book to commend it. The first chapter is full of good advice both to the student and practitioner. Referring to "specialism," the author says "a specialty, to be exercised legitimately, must be the outgrowth of an education possessing honest claims to completeness, and at the same, of a fair capacity, if necessity should arise to practice the medical profession in all its branches." The chapters on "hæmorrhage" and "shock" are excellent. By an odd arrangement, the important subject of "inflammation," which is usually made to introduce almost every surgical disease, is treated of in one of the last chapters. The lectures, altogether, make nice reading, and the editor is to be congratulated on the get-up of the book generally.

**Handbook of the Diagnosis and Treatment of Skin Diseases.**—By ARTHUR VAN HARLINGEN, M.D., Professor of Diseases of the Skin in the Philadelphia Polyclinic, &c. Philadelphia: P. Blakiston, Son & Co.

"Still they come." Every specialist must write his book or die in the attempt. However, we welcome the little book at present under review, as we feel convinced, from a careful perusal of it, that it fills a gap in the literature of dermatology which must have long been felt by American practitioners. It is a ready-reference book on skin diseases, the latter being arranged alphabetically. The commoner affections only are treated fully, while all debatable questions having reference to etiology and pathology are omitted. There are two handsome woodcuts illustrating the primary lesions of the skin. We heartily recommend the book to students and general practitioners.

**Materia Medica and Therapeutics: An Introduction to the Rational Treatment of Disease.**—By J. MITCHELL BRUCE, M.D., Lond., M.A., Aberd., F.R.C.P.L., Physician and Lecturer on Materia Medica and Therapeutics, Charing-Cross Hospital. Philadelphia: Henry C. Lea's Son & Co. Montreal: Dawson Brothers.

This is one of the "manuals for students of medicine" being

published by the above firm. This series is furnishing an excellent set of text-books, and the selection of the various authors so far appears to have been very successful. The present work contains within a small compass the whole essence of the *Materia Medica*—both organic and inorganic—and, in addition, very complete sections upon the therapeutical applications of the various agents. Indeed, the greater part of it is occupied with therapeutics arranged in such a manner as to impress the mind with correct principles of treatment, and to lead to the judicious and scientific employment of drugs for the cure of disease. We cordially recommend it to the notice of practitioners and students.

**The Physician's Visiting List for 1885.**—Thirty-fourth year of its publication. Philadelphia: P. Blakiston, Son & Co.

The arrival of the Visiting List is always a reminder that the year is drawing to a close. It is one of the essentials of the physician's outfit. The pocket-book of Lindsay & Blakiston we have used for many years, and find it answer every purpose. It can be obtained of any size, for 25, 50 or 100 patients per week. Its obstetrical calculation-table, posological lists, poison memoranda, &c., are all very handy, and it contains also a diagram of the chest, from which tracings can easily be taken for marking special points with reference to physical diagnosis.

### Books and Pamphlets Received.

**THE SCIENCE AND ART OF SURGERY.** A Treatise on Surgical Injuries, Diseases, and Operations. By John Eric Eichsen, F.R.S., LL.D., &c. Eighth edition. Revised and edited by Marcus Beck, M.S. and M.B., Lond. Vol. I. Philadelphia: Henry C. Lea's Son & Co.

**THE ELEMENTS OF PATHOLOGY.** By Edward Rindfleisch, M.D. Translated from the first German edition by Wm. H. Mercur, M.D. Revised by James Tyson, M.D. Philadelphia: P. Blakiston, Son & Co.

**THE ELEMENTS OF PHYSIOLOGICAL AND PATHOLOGICAL CHEMISTRY.** A Handbook for Medical Students and Practitioners. By P. Cranstoun Charles, M.D. Philadelphia: Henry C. Lea's Son & Co. Montreal: Dawson Bros.

**MANUAL OF CHEMISTRY.** A Guide to Lectures and Laboratory-work for Beginners in Chemistry. By W. Simon, Ph.D., M.D. Philadelphia: Henry C. Lea's Son & Co. Montreal: Dawson Bros.

**SURGICAL DELUSIONS AND FOLLIES.** By John B. Roberts, A.M., M.D. Philadelphia: P. Blakiston, Son & Co.

**ELEMENTS OF PHARMACY, MATERIA MEDICA AND THERAPEUTICS.** By William Whitla, M.D. Second edition. London: Henry Renshaw.

## Society Proceedings.

## MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

*Stated Meeting, June 27th, 1884.*

T. A. RODGER, M.D., PRESIDENT, IN THE CHAIR.

*Crushed Hand treated by dry and infrequent dressings.*—

DR. SHEPHERD exhibited a patient who, some two weeks before, had received a severe crushing injury of the hand. The palm of the hand was deeply incised from one side to the other, and all the short muscles of the thumb were torn out and lying exposed in the palm. The back of the skin of the hand was enormously distended with effused blood and serum. The extended muscles were replaced, a drain inserted on the thumb side, and the wound stitched up. The back of the hand was deeply incised over each metacarpal bone to allow the effused blood to escape, and the whole dressed with iodoform and pads of naphthalized jute, covered with washed gauze, and firmly bound with an antiseptic gauze bandage. Owing to the oozing of blood the dressing had to be changed next day, at which time the drainage tube was much shortened. It was redressed as before, and as there had been no elevation of temperature, discomfort, or pain, the hand had not been disturbed since that time. Dr. Shepherd now removed the dressings before the Society, and showed that the condition of the hand was most favorable; there was union by first intention everywhere, except where the drainage tube was, the hand had quite a normal appearance, and the dressings were only stained with a little bloody serum. Dr. Shepherd remarked that this case was an example of many he had treated in the same way, and which showed the benefit and simplicity of dry and infrequent dressings.

DR. RODGER said that he treated compound fractures from railway accidents with dry dressings of absorbent cotton and iodoform.

*Sarcoma of the Skin and Cellular Tissue about the Ankle—Amputation—Recovery.*—DR. SHEPHERD read a paper on this case, and exhibited both the foot and slides from the diseased

structures. The following is an abstract of the paper, which was published in full in the *Medical News* of Sept. 20, 1884 :

E. M., a delicate-looking youth, aged 18, came to hospital in April last suffering from an ulcerated swelling above the left ankle. The ankle was first injured six years ago by a fall, from which he recovered so as to walk as well as ever, although a slight swelling remained. A year after, it became painful and more swollen. An unsuccessful incision was made for pus, which opening never healed. Three years ago he was kicked on this ankle by a horse, which increased the trouble. The joint itself, since the first hurt, was apparently never affected, but the swelling on the inner side slowly increased, and at different points sinuses would form. On entering hospital, the parts about the inner side of the left ankle were of a shiny, dusky red color and considerably swollen. At the upper part were several sinuses, and near the centre a small ulcer. Pressure, which gave a semi-elastic sensation, was not painful. A free incision was made. After cutting through very thick infiltrated skin, pockets of a tissue like granulation-tissue were opened up. A neoplasm was suspected, and some of the substance from the pockets was sent to Dr. Wilkins for microscopical examination. He pronounced it a very good example of the round-cell sarcoma. Dr. Shepherd at once amputated the leg at some distance above the disease, dressing the stump with iodoform and pads of sublimated jute. Decalcified bone drains were tried, but had to be given up, as they collapsed. The case did well, the temperature after the third day never reaching 99°. The case was instructive, chiefly on account of the difficulties it presented for diagnosis and the importance of its being correct, as sarcoma, especially the round-cell variety, unless removed, is a fatal malady.

DR. GEO. ROSS asked what was Dr. Shepherd's experience with decalcified bone tubes, and why they failed in this case.

DR. SHEPHERD, in reply, said that these tubes had been kept in carbolic oil, which made them too soft, spirit being the better fluid to keep them in. They use these tubes in New York, but have difficulty in getting them just right. Some become absorbed too soon ; others never absorb.

DR. FENWICK had found the indiarubber tubes to give entire satisfaction ; in some of his cases of excision of the knee, the dressings were renewed but three times in all.

DR. RODDICK said he made some decalcified bone tubes, and used them twice, but they became clogged. He said McEwen experienced this same trouble, and now passes horse hair through the drain. This he finds prevents clotting. Another objection to them was that the bone tubes sometimes become absorbed too fast, and leave a pocket of pus undrained.

DR. STEWART exhibited a case of *Multiple Cerebral Sclerosis, having an Apoplectiform mode of onset, and where Syncopal and Apoplectiform attacks frequently recur*. The patient, a man aged 47, hotel porter, came under observation three months previously complaining of obstinate constipation, difficulty in speaking, and dimness of vision. He gave the following history : Three years ago, while in the enjoyment of his usual health, he was seized, while seated on the driver's seat of an hotel 'bus, with giddiness. He was at once carried home, and almost immediately afterwards passed into a state of unconsciousness, which lasted twelve hours. After the return of consciousness, he passed, in a few minutes, into a delirious state of a few hours' duration. For some three weeks afterwards, his wife says, he was "weak and useless," and "his speech was so curious that it was difficult to understand what he said." In the course of a few months he was able to speak much plainer, but not so plain as he could do previous to the attack coming on him. In the autumn of 1882, he spent some weeks in the General Hospital, and while there was under the care of Dr. Ross. Through Dr. Ross' kindness I am enabled to compare his state at that time with what it is at present. With the exception of syphilis, he never had any trouble up to the time of his present affection coming on. He formerly drank to excess, but not since the commencement of his present illness. His father died of what he calls "liver complaint." His mother and only brother are dead, but he is ignorant of the cause in either case.

*Present state—Nervous system.*—There is a considerable degree of mental weakness, which has only been apparent dur-

ing the past year. It is progressively becoming more and more pronounced. He frequently loses his way in the streets. He is extremely emotional, laughing and crying without an apparent cause. His memory for recent occurrences is very poor, but good for trifling events of many years past. He has a very exaggerated opinion of his own cleverness. As he never received any education, he is unable to write. His speech is markedly slow, monotonous, and syllabic. The voluntary power in both upper and lower extremities is good. When he undertakes to perform any movements, the muscles commence to tremble. This tremor, however, is not always marked; very frequently it is absent, especially in the afternoon and evening. It is very pronounced immediately after getting out of bed in the mornings. The nutrition of the whole voluntary muscles, except the tongue, is normal. The patellar and superficial reflexes are present. The co-ordination and muscular sense are not interfered with. There is no disorder of sensation. There is no paresis of the bladder or incontinence of urine. There is no obstinate constipation. Dr. Buller has examined his eyes. He finds simple atrophy of both discs. Vision is *nil* in the right eye, and almost so in the left. There is no paralysis of any of the ocular muscles. Hearing, taste and smell are good. There is paresis of the respiratory branches of both facial nerves, as is evidenced by the expressionless aspect of the lower half of the face, the obliteration of the naso-labial folds, the dribbling of saliva from his mouth, and by his inability to whistle and to show his upper teeth. The soft palate is very slightly paretic. When the mouth is opened, the lower jaw trembles. He has difficulty in protruding his tongue, and when he attempts to do so, it commences to tremble. There is not only difficulty in protruding the tongue, but there is difficulty in keeping it protruded. The tongue is very slightly wasted, but it is not the seat of any fibrillary twitchings. There is no impairment of either the motor or sensory divisions of the trigemminus. He has no difficulty in swallowing. He complains much of giddiness, especially when walking; objects, he says, are constantly turning around him. He is subject to both syncopal and apoplectiform attacks; both



coming on suddenly, without warning,—the former lasting a few seconds, and attended with paleness of the face ; the latter lasting several hours, and attended with suffusion of the face and an elevated temperature. His pulse is constantly beating between 40 and 45 times in the minute, and at times it is irregular in rhythm. His urine is free from both albumen and sugar.

The patient's present condition was then contrasted with what it was when he was in the General Hospital 18 months previously.\* At that time the symptoms present were purely bulbar. Since that time the bulbar symptoms have gradually increased in severity, and, in addition, we have involvement of the optic tracts, cerebrum, and in all probability the cerebellum also. Although the giddiness may be explained otherwise, it is probable that its mode of causation in this case is the formation of sclerotic nodules in the cerebellum. Whether the slow pulse is a proof of the implication of the vagus nucleus, it is impossible to say. If so, it is necessary to suppose an irritative lesion of the cardiac inhibitory nucleus. The case is undoubtedly one of multiple cerebral sclerosis, commencing in the pons and medulla and gradually extending into the cerebrum, cerebellum, and optic tracts. There is no evidence of the pyramidal columns being affected either primarily by the sclerosing of their structure or secondarily by a descending degeneration. Neither is there any proof of any other portion of the cord being involved. The case is therefore one of pure cerebral sclerosis. It is noteworthy for its peculiar mode of onset, and for the apoplectiform and syncopal attacks to which the patient is liable. Another interesting feature in this man's case is the intermittent presence of tremor. In the great majority of cases of disseminated sclerosis, tremor on voluntary movement is the most constant and most characteristic symptom present.

DR. GEO. ROSS said he had not seen the patient since he reported the case to the Society. At that time he had recently had an attack, apoplectiform in character, which he believed to have been due to a hæmorrhagic clot.

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\* A detailed report of his then state will be found in the Society's Transactions recently published. Dr. Ross gave an account of his condition at the meeting held on December 1st, 1882.

In reply to Dr. Roddick, DR. STEWART said his patient had taken iodide of potassium.

DR. HY. HOWARD said that these cases of sclerosis vary so much that it is difficult to group the symptoms so as to tell positively whether the brain or the cord was affected primarily. Erb says that out of 200 cases, 171 were syphilitic, and the cord was first affected. Dr. Howard's own observations showed that 7 out of 10 had syphilis. A man in the asylum denied having had syphilis till the marks were found; his first symptom was impotency. He (Dr. H.) had never seen a case cured. Insanity in those cases of progressive paresis was caused by reflex action from the cord where it is diseased to the higher nervous centres, which are the lowest organized.

*Cancer of the Stomach; rapid growth of the tumor.*—DR. CAMPBELL related the following particulars of this case:—Had been sent for early in May to see Mrs. L., aged 41, who was complaining of pain over the stomach, but not very severe. As her mother had died of cancer, he was pretty sure this would prove to be the same trouble, although no tumor could, as yet, be made out. Within a week vomiting set in. *June 1st*—Rather worse. *5th*—Could keep nothing on her stomach. On the 7th, could feel a nodule, which, in 48 hours, increased wonderfully from being the size of the top of the thumb to that of an egg. The vomited matters were the color of bile—never bloody. The patient died a week later. The pylorus and lesser curvature were implicated. There was stenosis, but not much dilatation of the stomach. Pain, which was never very severe, was less toward the end. There was no cachexia present.

DR. TRENHOLME said he had had two similar cases. In one, there were no symptoms till within three or four days before death, although a cancerous mass the size of a turnip existed, which involved the stomach; the other was that of an old gentleman, who ate well up to the last, and had very little pain.

## Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

**Perforation of the Vermiform Appendix, with Peritoneal Abscesses.** DEATH AFTER A LONG INTERVAL FROM PYÆMIA.—Dr. D. W. Finlay read a case with the above title. John L., a baker, was admitted into the Middlesex Hospital on January 4th, 1884. He complained of severe pain over the whole abdomen, which was moderately distended, tender, and tympanitic. The areas of liver and splenic dulness were normal. Heart and breath sounds were normal. Tongue dry and coated, with a brown strip down the centre; cheeks flushed, lips dry and cracked. Pulse was 96, compressible; temperature  $96.6^{\circ}$ ; respiration 24, and entirely thoracic. The urine was turbid with lithates, and very acid, specific gravity 1,034, free from albumen and sugar. As to history, he stated that he had had a similar attack three years previously, suffering from abdominal pain, with sickness and feverishness. Otherwise his health had been good. His present illness came on a week before admission with griping pains across the lower part of the belly, followed by vomiting, headache, and diarrhoea. He was treated with opium, and put upon a diet of milk and beef-tea, and three days after admission appeared much better; the general tenderness of abdomen had disappeared, but there was a spot midway between the costal margin and iliac crest on left side, where tenderness remained, and the percussion note was dull. On January 9th his bowels were opened for the first time after admission, the motions being loose and light in color, with a few small scybala. During the night he had been seized by pain in both parotid regions, and this was followed by swelling and tenderness, with inability to open the mouth. Both swellings suppurated, and were incised; his temperature slowly rose, and he became delirious, and sank somewhat suddenly on January 16th. He had had no rigors. At the *post-mortem* examination three large and as many small abscess sacs were found within the peritoneum, the oldest-looking being round the vermiform appendix, which was perforated about half way from its attach-

ment. The appendix was plugged by a small mass of faecal matter on the caecal side of the perforation. The peritoneal surface generally showed old fibrous bands and greasy-looking flakes uniting the coils of intestine together, with some recent injection, but almost no recent lymph. The other organs were fairly normal, except that the lungs were oedematous, and the left pleura contained a quantity of clear serous fluid. The case seemed interesting from the prolonged latency of the disease, the perforation of the appendix having probably taken place on the occasion of the previous attack, adhesions being then formed which prevented for the time a fatal result. It was certain at all events that the abscess sacs were of very considerable age, and it was a striking fact that the man should have been able to go about his daily work apparently in good health with such a condition of his abdominal cavity.

Dr. Mahomed said he had been lately considering the subject of recurrence of peri-typhlitis, and had been proposing to himself to perform an operation for removal of concretions from the caecum by means of abdominal section. He had designed what he considered to be a suitable operation, by practice in the *post-mortem* room. He found that by means of an incision, as for ligature of the external iliac artery, the vermiform appendix could be easily reached, in some cases without opening the peritoneal cavity. In conjunction with Mr. C. J. Symonds he had successfully removed a calculus from the vermiform appendix of a patient suffering from recurrent attacks of peri-typhlitis. He thought that a certain amount of induration was a necessary feature in such a case, to act as a guide during the operation. He quoted Professor Anstin Flint's observation of the loss of hepatic dulness in cases of caecal perforation. Such a sign, if true, was a useful point in diagnosis. In reply to the President he said that the calculus which he had removed was mainly phosphatic.

Dr. C. T. Williams mentioned a case in which a localized peritonitis from perforation of the appendix was diagnosed. The patient recovered, but after his subsequent death from pneumothorax, it was found that a small and perfectly closed sac had

become formed around the seat of the ulceration. Looking at the frequency with which concretions might take place within the vermiform appendix, and the numerous instances of recovery after perityphlitis which had been recorded, he thought we ought to pause before considering such a serious measure as operation, and be quite sure that recovery in any other way was impossible.

Mr. Howard Marsh urged the importance of early recognition in these cases. He fully agreed with Dr. Mahomed in the advisability of operating in such cases, and he believed that in course of time the operation would become a recognised practice. He pointed out the possibility of the anatomical relation of the vermiform appendix varying with respect to the peritoneum. The first step in diagnosis must be to determine this relation. He mentioned a case lately seen in which perforation of vermiform appendix was not found when it had been diagnosed.

Mr. Bryant believed that the operation suggested by Dr. Mahomed was the best that could be devised in such cases. He thought, however, that an exact diagnosis of the position of the vermiform appendix was not possible. The inflammation generally begins in the connective tissue around the vermiform appendix; in other cases the ulceration is in the cæcum itself and spreads around it. Suppuration may occur and pus may burrow its way in all directions, in which case the result is almost always fatal sooner or later. He thought that the practice of early incision was right, and mentioned three cases in which pus had been evacuated by this means. The diagnosis was not difficult on the whole, but he thought that a very valuable symptom, that of pain in the course of the anterior crural nerve, was not sufficiently recognized. In one suspected case he had found that by using forced extension, pain was produced in the inflamed cæcum, thus indicating the seat of lesion. He should have occasion elsewhere to refer to this subject, but suggested that this question of early operative interference in perityphlitis should be seriously considered.

Mr. Christopher Heath thought that the diagnosis of perforation of the vermiform appendix outside the peritoneum was

generally rendered easy by the occurrence of emphysema along the course of the cæcum.

Mr. R. W. Parker mentioned a case of a boy who had injured his abdomen when suffering from inability to pass water. Vomiting ensued for twenty-four hours before death. The vermiform appendix was found to have been perforated, several hard concretions lying within it. There was local peritonitis and general peritoneal inflammation of more recent date.

Dr. Mahomed observed that he would put aside the question of operating during an attack of peri-typhlitis. He thought that an operation would only be admissible between the acute attacks.

Dr. Longhurst mentioned a case where five attacks occurred in two years, ending in ulceration and abscess. He asked if any treatment could be suggested to prevent the liability to such recurrence.

Dr. Finlay referred to the observation of Dr. A. Flint, mentioned by Dr. Mahomed, and said it was familiarly known at the Middlesex Hospital that intestinal perforation might lead to obliteration of hepatic dulness.—*Proceedings Clinical Society, London, in Medical Times.*

### **The Aspirator as a means of Treatment.**

—*Pneumothorax.*—In some cases of traumatic pneumothorax, I think aspiration may be practised with the best possible results. Dr. Herbert Page has published a case in which, owing to a wound of the lung caused by the in-driving of a fractured rib, there was pneumothorax, with total collapse of the right lung. There was great dyspnæa and collapse. The chest was punctured, four hours after the accident, by Dieulafoy's cannula; and, on exhausting the air from the pleural cavity by means of the pneumatic aspirator, immediate improvement in the condition of the patient followed. At the time of the operation, blood was drawn into the receiver; and an examination of the chest on the day after the injury revealed dulness on percussion at the base on the left side, due to the presence of blood. The aspirator was used three times subsequently, for the removal of the blood and the further withdrawal of air from the pleura. The patient made a good recovery. Dr. Page, while admitting the advantages of the

use of the aspirator in these cases, drew attention to a possible source of danger from hæmorrhage into cavities exhausted of their contents by the aspirator. There can be no doubt that, in a case of wound of a vessel in the lung by the broken rib, accompanied by pneumothorax, the withdrawing the air from the pleura might, and probably would, encourage bleeding from the wounded vessel; but here, as in effusion of fluid into the pleura, I would urge the great importance of withdrawing the air very gradually, and not attempting to empty the chest-cavity entirely at the first aspiration. If this precaution be taken, I cannot think there is any very great risk of increasing the hæmorrhage. At any rate, as in the case related by Dr. Page, the relief given quite outweighed any danger there might be from such a source.

*Pericarditis.*—Removing fluid from the pericardium by means of aspiration, in effusion into the pericardium, has been now practised in this country pretty often, but very much more so in France and Germany. Mr. Bartleet of Birmingham tapped a case of Dr. Russell's, who was suffering from acute rheumatism, urgent dyspnœa being the prominent symptom. He withdrew 14 ounces of fluid, and the patient did well. Dr. Shingleton Smith also reports a case in which he removed a quantity of fluid from the pericardium, and the patient made a good recovery.

*Ascites.*—There can be no doubt of the use of the aspirator in removing fluid from the abdominal cavity in cases of ascites. The advantages over ordinary tapping are that the fluid can be withdrawn slowly and gradually, and can be stopped directly the patient shows the least sign of faintness or dyspnœa. The operation is so simple that it can be repeated again and again without any fear of setting up local inflammatory mischief.

*Liver.*—There is, perhaps, no organ in the body which is so subject to abscesses and hydatid cysts as the liver; and in these cases the aspirator can be introduced, the abscess or hydatid emptied, and the patient, in all probability, cured; at any rate, he is put in a very much better position than he could possibly be by any other mode of treatment. Before the aspirator was invented, in cases of abscess of the liver, we were obliged to wait until there was adhesive inflammation, causing the peri-

toneum covering the abscess to adhere to the parietal peritoneum, before the surgeon could venture to open the abscess either by the lancet or by the trocar and cannula. Abscesses have often emptied through into the peritoneal cavity, with the result of the death of the patient, or they may have burst into some portion of the intestine, and so emptied themselves, in which case the patient usually recovered; they may perforate the diaphragm, and burst into the lung, the pus being expectorated, and here, again, many patients have recovered. While, however, the abscess was eating its way into these organs, the patient's strength often failed and he died. The introduction of the aspirator has happily been the means of our saving many poor sufferers from months of agonizing pain, and also very many have been restored to health by its early application. I think it cannot be too forcibly impressed upon every physician or surgeon, that, if a patient present himself who has a circumscribed hard swelling in the liver, the nature of which is doubtful, it should at once be punctured with the aspiration-needle, and if it should turn out to be an abscess or hydatid cyst, by means of the pneumatic aspirator the cavity can be emptied. Again, I would go further and say that, if the patient present any symptoms of hepatic abscess, and if there be any one tender spot traceable over the liver, the surgeon is quite justified in puncturing the liver at the tender spot, with a view of discovering an abscess. Surgeon-Major Condon has recorded twelve cases that came under his notice and treatment: seven perfectly recovered and five died; of these five he points out that "four of them were in a dying state when received by me under treatment, and the operation was merely resorted to as a *dernier ressort*, and with the satisfactory results of relieving suffering and prolonging life." In one case he tapped an abscess fourteen times, when a second abscess was discovered, which was tapped sixteen times, and the patient was enabled to be removed to a P. & O. steamer and conveyed to England, where he died. Mr. Condon remarks that the enormous quantity of pus taken from the liver (about 400 ounces) is, he believes, the largest quantity taken from a human liver on record. Numerous other cases have been reported by



Sir Joseph Fayrer, Dr. Ball, and others. Dr. Beahmy has practised it in many cases, and all but one were successful, in which case he did not reach the abscess. In some cases recorded, when liver abscess was suspected, the liver was sometimes punctured several times, and no abscess was discovered; but the patients were very much relieved by the operation, the pain disappeared, and the distressing symptoms were much alleviated. Dr. Heaton reports a case of hydatid of the liver successfully treated, and draws attention to the advantage of this instrument over the trocar and cannula, as in the latter you have to set up adhesive inflammation of the peritoneum before tapping. Cases also have been reported by Mr. Jessop, and also by many French surgeons.

*Tympanites.*—Aspiration has been practised successfully in extreme tympanites, and in emptying ovarian cysts; but I do not know that there is much advantage in this instrument over the trocar and cannula in these affections.

*Distension of the Bladder.*—In distension of the bladder due to either impermeable stricture or traumatic rupture of the urethra, or either enlargement or cancer of the prostate, when it is found impossible to pass a catheter, I have had great reason to be satisfied with the use of the pneumatic aspirator, the bladder being punctured with a fine needle over the pubes; and here I recommend the use of a large curved needle, so that you can efficiently empty the viscus. In one case I had under my care, of impermeable stricture of the urethra, with retention of urine, in which I failed to pass a catheter, I emptied the bladder with the aspirator over the pubes; and in a few hours afterwards, the spasm being relieved, the patient passed his urine by the urethra. I was enabled to pass a small instrument through the stricture, which I split up, and the patient made a good recovery.

*Hernia.*—The French surgeons have practised with good results aspiration in cases of strangulated hernia, and in our own country cases have been reported by Mr. Jessop of Leeds and others. The cases in which it appears to me that such a course might be adopted are those in which there is a collection of fluid

in the sac which prevents the surgeon from being able to use direct pressure on the strangulated gut, and cases where there is a collection of flatus in the gut itself, which increases its calibre and prevents its return. In such cases as these, it is not difficult to see that great good might result by aspiration; and if, after removing the fluid in the sac, or the flatus from the gut, we fail to be able to return the hernia, I do not think the patient is placed in any worse position for operation than before. Dieulafoy reports 27 cases in which he used the aspirator for strangulated hernia, 20 of which were successful reduction of the gut by taxis following the operation. In the remaining seven cases, it was harmless; and of these, three died, and four recovered after the ordinary operation for hernia. At University College Hospital, seven cases are reported, one followed by reduction, and no fluid was withdrawn from the sac; yet the impulse returned, and the patient recovered; in four, it failed entirely; in three of these, the ordinary operation was performed successfully; the remaining case was mentioned at the time of operation. At the *post-mortem* examination, no gas could be squeezed from the punctures of the needle.

*Joints.*—In cases of effusion into the joints, much has been said and written; but think now, in France especially, the importance of removing fluid from synovial cavities is fully recognized; and, in this country, it is practised much more frequently than it was a few years since. In a discussion that took place some years ago at the Academy of Medicine in Paris, in which Dr. Verneuil, Demarquay, and others took part, the conclusions arrived at were that pneumatic aspiration in hydrarthrosis of the knee-joint, both in its acute and chronic form, is a most useful remedy. In the acute, when the pain is most severe, owing to dislocation of the capsule of the joint, and in the chronic form, that will not yield to any other treatment, the method of performing the operation is, I think, of great importance. An elastic bandage should be applied both above and below the knee, or broad strips of plaster would do nearly as well. These should be drawn tighter as the contents of the joint are withdrawn, which takes place very slowly, owing to the viscosity of

the fluid. The cannula should be from a 1-20th to 1-12th of an inch in diameter, and the puncture should be made in an upward direction, but at the external edge of the patella. When the joint is emptied, a little styptic collodion is painted over the puncture, a small pad of antiseptic gauze or lint placed over, and the whole joint evenly strapped up. The leg should be bandaged, and, if thought necessary, an ice-bag applied to the joint, and the limb, for a day or two, kept at perfect rest by the application of poroplastic splints. Mr. Jessop has practised aspiration successfully in pyæmic abscess of the hip and knee joints, and has also reported cases of pneumatic aspiration in ordinary dropsy of the knee-joint. In cases of fractured patella, with either effusion of serum or blood, Mr. Christopher Heath has now for some time practised emptying the joint by aspiration before putting up the fracture; in this way he has obtained most happy results.

*Abscesses.*—Deep abscesses of the thigh or ilium, lumbar and psoas abscesses, may all be well treated by aspiration.—*F. B. Jessett, in Brit. Med. Journal.*

**Use of Hodge's Pessary in Fractures of the Lower Jaw.**—Dr. W. J. Naismith (*Lancet*) describes a fracture of the lower jaw at the symphysis, with a transverse wound two inches in length over the mental protuberance. The fragments of the jaw were freely movable, and it was desirable to apply an apparatus which would fix the bone in place immovably, and at the same time allow the wound to be dressed. Accordingly a Hodge pessary was brought into use by bending it so as to allow the chin to protrude through its ellipse. One bar was moulded so as to support the fracture anteriorly, the other steadied it from below, while the rounded ends afforded admirable lateral pressure on each side, at a point in front of the angles of the jaw. To the rounded ends of the pessary tapes were sewn, two on each side, over the padding, and secured over the head, or to a fillet, and around the neck by small buckles. For fractures of the maxilla, at or near the symphysis, with or without wound, the Hodge pessary seems well adapted. It can be bent to fit any size of jaw, and in the qualities of comfort, lightness and coolness, compares very favorably with the solid cumbersome appliances included under the head of moulds.—*Med. Med. Jour.*

CANADA

# Medical and Surgical Journal.

MONTREAL, NOVEMBER, 1884.

## HYDROCHLORATE OF COCAINE.

The exchanges which have come to hand during the past two or three weeks, more particularly those published in the large cities of the United States, have contained extended notices of the anæsthetic properties of this remarkable drug. Ophthalmologists are especially enthusiastic regarding it, and hitherto nearly all the experiments and clinical observations have been made by them in connection with the surgery of the eye. Experiments were first made with the drug before the Ophthalmological Congress recently held at Heidelberg, where a solution was dropped into the eye of a patient, causing complete anæsthesia of the conjunctiva and cornea. Dr. Noyes of New York, who happened to be present at the congress, was the first to bring the preparation prominently before the notice of the profession on this side of the Atlantic, and since then several observers have been busily engaged investigating its properties.

Cocaine, which has been known for some time, is an alkaloid obtained from the leaves of the erythroxyton coca. It combines with acids to form salts, which are very soluble in water. Ten years ago Dr. Ott, an American physiologist, showed by experiments on animals that a solution of cocaine, given in small doses, stimulated, and then, in larger doses, entirely destroyed sensibility, acting on the posterior columns of the cord and on the sensory nerves.

The preparation now so prominently before the profession—the hydrochlorate of cocaine—has been known for about a year. Laryngologists have been using it for some time past locally to diminish the sensibility of the larynx for purposes of examination.

But it was not until Dr. Koller demonstrated its anæsthetic action on the eye at Heidelberg, the other day, that ophthalmic surgeons were aware of its immense value to them. The drug is best employed in a two per cent. aqueous solution, although, doubtless, cases will arise where a stronger preparation may be required. The most approved method for causing anæsthesia of the eye-ball is to instil into the conjunctival sac three or four drops every five minutes for twenty minutes. One observer has found two drops every ten minutes for two applications sufficient, proving that the same strength of solution will not be equally effective in all persons. In about three minutes after the first application the sensibility of the eye-ball begins to lessen, and so continues for about twenty minutes, when a rapid restoration to the normal takes place, until, in half an hour, the sensibility is completely restored. The application is painless, and the only appreciable effect produced on the eye is dilatation of the pupil, which, however, seldom continues longer than twenty-four hours, while the accommodative power is disturbed for a much shorter time.

So far, observations with regard to the action of cocaine have been confined almost exclusively to the eye, although Roosa is said to have employed it with success in a case of tympanic neuralgia, which was relieved by two applications. Dr. Polk of New York also reports two cases in which trachelorrhaphy was performed, the cervix having been previously treated with a four per cent. solution of hydrochlorate of cocaine. If our information be correct, may it not be reasonably expected that this interesting drug will in time become universally employed in surgery as a local anæsthetic? We notice that some experiments made recently by Mr. Arthur Benson, and reported before the Ophthalmological Society of London, were somewhat unfavorable to cocaine.

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—At a largely attended meeting of the Medico-Chirurgical Society of Montreal, held on the 7th inst., the following resolutions were unanimously passed:—

*Resolved*,—That this Society has every reason to believe that the statements contained in the Report of Dr. Tuke of London, Eng., upon

our Provincial Lunatic Asylums are in every material respect true and well-founded ;

That these statements show a most lamentable state of things as regards the general, and especially the medical, management of these Institutions ;

That it appears to this Society to be the imperative duty of the Provincial Government to institute a thorough investigation by competent persons into the entire system of management of the insane poor in this Province ;

That the "farming" or "contract" system, either by private individuals or by private corporations, has been everywhere practically abandoned, as being prejudicial to the best interests of the insane and producing the minimum of cures ;

That, in the opinion of this Society, all establishments for the treatment of the insane poor should be owned, directed, controlled and supervised by the Government itself, without the intervention of any intermediate party ;

That the degree of restraint known to be employed in our Provincial Asylums is, according to the views of the best modern authorities, excessive. That the ablest European, American and also Canadian alienists have almost entirely given up any method of mechanical restraint. That these facts call urgently, in the name of humanity, for reform in this direction in our Provincial Asylum.

*Resolved*,—That this Society concurs fully in the opinion already expressed by Dr. Tuke in his report, to the effect that "the authority of the visiting physician (Dr. Henry Howard), appointed and paid by the Government, has been hitherto almost, if not entirely, *nil*." His hands have been so tied that he could not be held responsible for the way in which the Asylum has been managed.

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—We have on more than one occasion alluded with pride to the character of the biological work which is being done at University College, Toronto, by Prof. Ramsay Wright and his pupils. They have now issued a complete monograph of the anatomy and histology of the cat-fish (230 pp. and 8 plates), which will be not only an invaluable and much wanted guide for students, but which contains many new points of special interest to workers in this field. Prof. Playfair McMurrich, of the Guelph Agricultural College, Mr. A. B. McCallum, and Mr. F. McKenzie, have been Professor Wright's collaborators in the work.

—Mr. Vanderbilt's gift of half a million dollars to the College of Physicians and Surgeons of New York is well timed and well placed. Well-timed, because higher medical education is languishing somewhat in the United States, and the influence of the stimulus of Harvard and the University of Pennsylvania needs refreshing ; well placed, because the 23rd street school has of

late years been struggling towards the light, and can now, with this money, make greater efforts to give New York one *first-class* medical college. It seems a pity that the greater part of the money must go in land and bricks and mortar. A large block has been secured close to the Roosevelt Hospital, at a cost of about \$200,000, and the buildings will be commenced as soon as the plans can be arranged. The Roosevelt will be utilized for clinical work. Happily the influence of such a donation is not entirely local; giving is contagious, and we expect to hear of millionaires in other centres following Mr. Vanderbilt's noble example.

—A physician in extensive practice has daily opportunities of judging of the force of the maxim that "truth is stranger than fiction," and we have often wondered that some of these experiences have not found their way into print, disguised as short tales. Some of the stories in Dr. Warren's "Diary of a late Physician" could be easily matched.

—Two well-known American physicians have recently entered the literary arena as novelists. "In War Time," by Dr. Sterer Mitchell of Philadelphia, has been delighting readers of the *Atlantic Monthly*, and grows in interest as the conclusion is approached. This is, we believe, Dr. Mitchell's first novel, but he has achieved more than a local reputation by his poems, a volume of which was issued a year or two ago. Dr. Hammond's "Lat" is not his first venture, but appears to have had a decided success; some of the English criticisms of the work are exceedingly favorable.

—Since the Hayvern murder case, the question of low temperatures in disease has had a special interest to many of our local physicians. They are met with under three conditions—drunkenness, with exposure, in which there is a well authenticated case (Renicke) of recovery after a temperature of 24°C. (76°F.); in mania, particularly of old people, in melancholia, and in progressive paresis, very low temperatures have been met with, one as low as 23.75°C. (74-75°F.); and, lastly, in injuries and disease of the cervical part of the cord, in which, occasion-

ally, a reduction in the body heat has been noted, though more commonly an elevation. The lowest rectal temperature on record is 23°C. (73.40°F.), in a case of limited hemorrhage into the medulla, in a patient brought to Prof. Thierfelder's clinic at Rostock. The man lived 24 hours after, and the temperature did not rise above 28°C. (82.40°F.)

—The old code State Medical Association of New York holds its first session in New York on the 18th and three following days. The meeting is likely to be a very enthusiastic one, but it will widen the breach between the two sections of the profession in the State, widen it, we fear, to an extent beyond the possibility of ultimate repair.

—We notice in the daily papers that the British Columbians are becoming very uneasy lest the Chinese should import leprosy into the country, several cases of which have already been detected among them. The experience of California should reassure them, for during the 35 years in which Chinese immigration has been going on, there has been only one doubtful case to show that it has been transmitted to a European. It would be well, though, to know precisely the extent to which the disease prevails on the Pacific coast.

#### PERSONAL.

—We hear that Dr. Hammond of New York purposes spending the winter in Washington, where he has built a fine mansion.

—The many friends of Dr. Metcalf of New York will regret to learn that his health is in a very precarious state.

—Dr. Hack Tuke of London sailed from New York in the *Aurania* on the 20th ult. He made a tour of inspection of all the eastern and a great number of the western asylums.

### Medical Items.

A LAXATIVE DECOCTION.—The following decoction is highly recommended by a writer in a recent number of the *Memorabilien*: A tablespoonful of a mixture of equal parts, by weight, of senna leaves, frangula bark, and licorice root is to be boiled for ten minutes in a pint of water. One half is to be drunk in the morning and the other half at night. The latter portion may be



allowed to stand without straining, and, should the morning portion have acted sufficiently, may be kept for the next morning. This decoction is particularly recommended as a "spring physic," as it can be taken daily for weeks together, is not open to the objection of distending the intestine with gases and disturbing the digestion, like mineral waters, and is so agreeable to the taste that ladies take it willingly.

**THE MODERN VIA AD ASTRA—A MEDICAL FABLE.**—Once upon a time a poor but humane physician was riding along a road which led by a dark forest, when he saw by the wayside a sick and miserable dog which had lain down to die. Moved with pity he got down from his carriage, picked up the poor animal tenderly, and gave it some food and drink. Suddenly the dog vanished, and he saw standing before him a beautiful fairy. "You have saved me from a miserable doom by your compassion," she said; "command now anything you wish and it shall be yours." The astonished physician replied, "I am a poor man, I should like to be rich." The fairy waved her hand, and extended to him a piece of paper and a bottle filled with a dark-colored fluid. "Here," she said, "is a prescription for an Infallible Compound Hair-Restorer; it will never fail, and it has been endorsed by the leading clergymen on both continents. The world is yours! Do you wish more?" "I am a quiet man," replied the doctor, "and little known; I should like to be famous." "You shall be more; you shall be immortal." Waving her hand again, she presented to him a small, dark, and curiously-shaped instrument. "See," she exclaimed, "it is a new and an 'Unquestionably Perfect Pessary.' It radically restores every malposition. Your name is blown into the side. Generations of suffering women and successful doctors will read and bless you. I have tried it myself," she added, blushing a little, and vanished.—*Boston Med. & Surg. Journal.*

**Morse's Glycerole of Celery Compound.**—About a year ago, at the suggestion of Dr. Jas. H. Burns of Toronto, this Compound was placed before the profession to be used instead of the more powerful drugs in the treatment of teething infants and adults suffering from nervousness, etc., etc. The after effects of opium are well known and deplored. Upon young children, in any case, the continued use of opium is very objectionable. A remedy having the necessary soothing and quieting effects of opium, followed by a tonic and nutritive action to the patient, should be invaluable to the practitioner. Such a remedy we have in **CELERY COMPOUND**, which needs only a thorough trial to demonstrate its value. The proprietor guarantees the formula to contain *no* opium in *any* form, and only the ingredients therein mentioned, flavored with anise. It can be given in large doses, as a tonic, to the most delicate infant, with perfect safety.