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Selections: Medicine.

THE INFLUENCE OF CONSTIPATION IN DEVELOPING DISEASE IN THE RECTUM AND ANUS.

*An Inquiry into the Structure and Office of the Large
Intestine and its Terminal Orifice, and the manner
in which they behave when diseased.*

BY REUBEN A. VANCE, M.D., OF CINCINNATI, O.

THE subject I have chosen for my remarks this evening possesses so many points of interest that I am forced to abandon any endeavour to treat it exhaustively, and shall limit myself to but few of the numerous questions connected with it. Yet, in order to do justice to the subjects I design discussing it is necessary to premise a few words relative to the structure of the parts involved, and to glance at the physiology of defecation. The principles involved in the development of one of the diseases excited by the morbid processes attendant upon and succeeding constipation—for instance, ulceration of the rectum—are essentially the same in respect of the other affections due to that condition of the abdominal organs. Consequently, the conclusions reached in relation to the ætiology of ulceration will apply, in great measure, to the development of other disorders in that organ.

In treating of the physiology of the rectum it is not only necessary to inculcate true views; erroneous doctrines must be combatted. On the present occasion it must suffice to state the former for there is no time for the latter. Modern researches have substantiated, in great degree, the ideas promulgated many years since by O'Beirne, of Dublin. He drew attention

to the similarity that exists between the œsophagus and the rectum—the commencement and termination of the alimentary canal; and declared that the resemblance was not limited to visual characters and anatomical appearance, but could be traced in the offices performed by the respective structures. For instance, when the canal of the œsophagus is not distended by a bolus of food, its walls are in apposition; notwithstanding the popular and professional preconception to the contrary, he declared that an identical state of facts existed in the rectum—that normally the walls of the rectum were in contact and its canal closed except during the few moments following a call to the water-closet and preceding the regular evacuation of the bowels; that coincident with the uneasy sensation that is recognised as a call to evacuate the bowels, the band of muscular fibres at the junction of rectum and sigmoid flexure relaxes, and with this relaxation, the upper opening into the rectum becomes patent, and the feces, heretofore contained in the sigmoid flexure, pass through this orifice and enter the canal of the rectum. As a general rule this opening of the passage-way between the colon and rectum occurs but once in the twenty-four hours: if the intimation then given is heeded, and the individual retires, the bowels are easily and naturally evacuated. If however, on the contrary, this call to the closet is resisted, the uneasy sensation, after persisting for a variable period of time, subsides, an anti-peristaltic contraction is excited in the walls of the rectum and the feces which have passed from the colon into the rectum, are returned to the cavity of the sigmoid flexure, and the walls of the rectum again fall

together. When the call to retire is responded to, and the fecal matter passed from the sigmoid flexure into the rectum has been voided, the remaining contents of the large intestine are slowly urged forward from the cæcum through the colon to the sigmoid flexure to be extruded in their turn. Consequently when the call to defecate is properly responded to, and that physiological act thoroughly accomplished, the excrementitious matter in the sigmoid flexure and cæcum is voided; that part contained in the former cavity being the first to pass away, and that lodged in the latter slowly traversing the ascending, transverse and descending colon and making its exit through the rectum without stopping for any length of time at any point between the cæcum and the anus. The fecal matter lodged in the large intestine prior to the call for defecation seems to be divided into two masses, and to rest in two distinct cavities—one portion being lodged in the cæcum and the other in the sigmoid flexure—and while it is certain that normally none of the feces distend the canal of the rectum except at the time, and under the circumstances noted, it is also quite probable that the ascending transverse and descending colon are equally free from its presence.

It would not be uninteresting to review the minute anatomy of the parts about the junction of the rectum and sigmoid flexure, and to trace the course of the vessels, both arterial and venous, in their course along the walls of the rectum and at the anal aperture. The distribution of a few of the external longitudinal fibres which enter into the structure of the muscular walls of the rectum must not be passed over, for they are active in the production of certain movements of the parts not less important in their pathological than their physiological relations. This muscular coat is composed of circular and longitudinal fibres; the former internal, the latter external. Aggregations of these circular fibres constitute the sphincter which guards the passage-way between the sigmoid flexure and the rectum; an accumulation of similar fibres at the anal outlet forms the internal sphincter. This internal sphincter is merely the thickened lower border of the inner layer of the muscular wall of the rectum—externally,

it is in apposition with the layer of longitudinal muscular fibres; internally, it is separated from the mucous lining of the intestine by a quantity of loose areolar tissue. This loose areolar tissue separates the mucous membrane of the rectum from the internal layer of circular fibres over the lower fourth of that organ, and permits the passage of a few of the external longitudinal fibres of the muscular wall of the rectum to which allusion has already been made. These longitudinal fibres pass down the external aspect of the rectum to the lower border of that organ, where they curve under the thickened ring of circular fibres constituting the internal sphincter and ascend on its inner surface to be attached to the fibrous substratum of the sub-mucous areolar tissue. A moment's reflection will render apparent the office performed by these fibres. In a word, these structures explain the phenomena of eversion of the mucous membrane of the anus which occurs during defecation. The first effect of contraction on the part of the longitudinal fibres which curve under the sphincter is to draw down, and then evert and protrude, the mucous lining of the lower end of the alimentary canal. When the fecal matter is discharged the protruded parts are promptly retracted by the natural contractility of adjacent structures, especially the levator muscles. Consequently, the mucous membrane of the lower part of the rectum during defecation moves freely over subjacent tissues; the part investing the internal and external sphincters is especially prone to change position during the functional activity of the organ; and ocular inspection demonstrates the fact that these movements may be from side to side during dilatation of the sphincter as well as in the line of the long axis of the intestine when the mucous membrane is first everted and then retracted with the commencement and conclusion of the physiological process of defecation.

These few facts premised, let us revert to the consequences of habitual neglect to empty the rectum at the proper time daily. One of the first results is that the rectum does not empty itself as completely as at first, and the lower part of its canal becomes a reservoir for fecal accumulations. In such cases, instead of

the organ remaining collapsed and empty, like the œsophagus, its canal furnishes lodgment to masses of excrementitious matter which should be evacuated. The evils induced are not confined to the organ at fault; the whole pelvic circulation may be deranged: external hæmorrhoids are developed, and internal growths made to bleed; while secondary derangements may be excited in neighbouring organs which remain long after the removal of the local accumulation. One common result, especially in cases where generally the patient has been of a regular habit of body prior to the development of the present attack of constipation, is for the unusual distention of the muscular walls to result in atony to such a degree that the whole coating of the intestine in the affected part hangs loose and flaccid. In these cases the rectum is rarely completely emptied; as a rule, sufficient material remains to distend the loose bag-like structures above the sphincters. Furthermore, the mucous membrane, and probably all the sub-mucous structures are deeply congested, and after an attack of constipation, quite a length of time must elapse before these tissues return to a perfectly natural state. One can readily comprehend the effect of a drastic cathartic in cases of this nature, and the only wonder is that more damage is not done than is ever heard of. The explanation of this exemption from almost inevitable evil seems to be due to the fact that a patient in whom the rectal walls have been distended and congested by constipation, suffers so much from the action of a cathartic, that the recumbent posture has to be assumed—a position favourable for the relief of the structures endangered. Otherwise, the lax loose structures of the rectal walls, when relieved from distension, fall within the grasp of the anal sphincters, where they are violently compressed, and it may be, strangulated. These tissues are already infiltrated from prolonged venous congestion, and their condition is such that even a mild degree of mechanical irritation is prone to excite violent reaction. The fact so generally noticed in cases of rectal ulceration in which the patient has remembered the symptomatic phenomena, and can recall them in the order developed—that is, that more or less hæmorrhage,

together with deep-seated pain in the rectum were the result of the violent catharsis which followed the exhibition of remedies to relieve constipation, can be explained by supposing that the sphincters have inflicted more or less damage upon the relaxed, infiltrated and congested coating of the terminal portion of the large intestine.

Again, there is a peculiarity of structure which it is important should be borne in mind in connection with congestion of the rectum—this is, the fact that the veins of that organ are unprovided with valves. This peculiarity of conformation renders the walls of the rectum especially liable to congestion at all times; particularly so in cases where there is a lesion located in one part of their course. When great care is taken to preserve the healthy normal activity of the parts, the rectum is free from congestion; its walls, below the junction of its upper part with the sigmoid flexure are contracted, empty and in close apposition. It is only when constipation, long neglected, permits the rectum to become a reservoir for fecal accumulation, thus distending its coats, atonizing its muscular tissues and rendering its walls congested and its veins varicose, that the lower part of the intestinal canal fails properly to perform its functions, and becomes so favourite a site for disease. In cases of this kind a brisk cathartic may empty the large intestine and induce disease of the lining membrane by permitting the relaxed and congested tissues to fall within the grasp of the sphincters, where they are so violently compressed as to destroy their structural integrity. It is in this manner, as has already been stated, that ulceration of the rectum is most frequently excited. When once an ulcer has been developed, it of itself tends to derange the local circulation, and by the demands made upon neighbouring blood-vessels, to keep up more or less congestion. Healthy repair is prevented in the varicose tissues within the rectum by many of the circumstances which render ulcers of the leg, in individuals suffering from varicose veins of the lower extremities, so tedious and persistent. It may seem like a misuse of terms to apply the designation “varicose” to the veins which return to the portal circulation, yet, as a matter

of fact, the tissues from which these vessels convey the circulating fluid are placed in even worse circumstances than are those structures of the leg, the venous emunctories of which have become tortuous and dilated. The "varicose ulcer" of the leg derives its individuality from disturbed nutrition in the part in which it is situated: in like manner nutritive derangements in the walls of the rectum induce the peculiar form of ulceration we are now referring to. The distance from the heart at which the varicose ulcer of the extremity is located, and the disturbance in the return of blood from structural changes in the veins, are the main agents in developing the peculiar characteristics of that lesion. Again, in the rectum the blood arises from a capillary network at one end, and terminates in a capillary network at the other. In the leg the local congestion is favoured by the distance from the heart at which the lesion is located, and by the defective character of the channels through which the blood must return; in the rectum, hyperæmia is favoured by the relaxed state of surrounding parts, by the demand for blood made by the ulcerated surface, and by the fact that the power of the heart is reduced to a minimum by the capillary network which exists at the peripheral and central ends of the hæmorrhoidal circulation. The surface of the ulcer is constantly irritated by acrid rectal secretions; the tissue changes induced are of an unhealthy character, and readily explain the sloughy appearance generally presented by such lesions.

Neglect to evacuate the bowels at the proper time, initiating the chain of evils to which reference has been made, may result in numerous other affections than the one alluded to. The connection between constipation on the one hand, and fissure of the anus, abscess of the rectum, fistula in ano, internal and external hæmorrhoids, prolapsus ani and recti, stricture of the rectum, polypus of that organ, etc., etc., on the other hand, may not always be so surely traced, as between constipation and ulceration of the rectum, yet the relation of cause and effect exists between them, and frequently is susceptible of demonstration. The anatomy and physiology of the rectum and anus are the keys unlocking the pathology of these various

affections; in like manner an acquaintance with the structure and function of those parts will prove invaluable in solving the question as to the proper treatment of the condition on which they depend.

A statement of the causes of constipation would be an enumeration of the various conditions which induce diseases of the cerebro-spinal axis and the abdominal organs. For our present purpose it will suffice to allude to those cases of constipation due to neglect of the bowels and inattention to the calls of nature—a very numerous and important class of cases. In this class are included cases of all degrees of severity: some, in whom the trouble is of recent growth, and readily relieved; others, of longer standing and greater severity; while the majority will comprise individuals in whom the habits of years are at fault, and in many of whom the evil due to their carelessness has been completely over-shadowed by the greater evil due to their imprudence. For in many, we find that the desire to regulate their bowels has engendered a disposition to meddle with drugs; between carelessness on the one hand, and drugging on the other, there are very many individuals who never empty their bowels without the aid of some form of cathartic medicine. Dismissing these lamentable facts from our minds permit me to ask your attention to a method of treatment which is efficient and free from danger.

This plan is very simple, and in part, is based on the principle that inasmuch as the evil we are endeavouring to combat owes its existence to a neglect to respond to the calls of nature, at the regular hour the system had habituated itself to having the bowels opened, we should first of all make an effort to solicit nature to re-establish that function by a voluntary attempt to void the feces when the proper time recurs daily. It is a fact of observation not sufficiently dwelt upon in this connection that it requires but a short sojourn in the rectum to cause absorption of the fluids in the feces, and to render the remaining matters hard and dry. Consequently, when the office of the large intestine has become deranged, and the natural disposition of the feces interrupted, the rectum may contain dry fecal matter during the greater

part of the time, notwithstanding that there seems to be a sufficient motion daily. In such cases, the addition of water to the contents of the large intestine is imperatively indicated. The bowels can be solicited to re-establish the suspended function, and the dry, hard fecal matter can be softened by the daily use of an enema: in this way both indications can be met, and in the vast majority of cases, a cure can be effected. Yet care must be taken in carrying out this plan of treatment, or the enemata may do harm instead of good—the conformation of the parts must be borne in mind, and when the enema is administered, it must be slowly injected through a tube which passes three or four inches up the rectum; it is preferable that the patient assume the recumbent posture, and throw in the fluid no faster than the rectum is able to receive and carry it up into the colon—by carefully attending to this point, from a pint to a quart of fluid can be administered advantageously, and if the recumbent posture is retained for a time, for from a quarter to half an hour may elapse before the bowels act. By pursuing this plan, the large intestine may be thoroughly emptied by the first injection; a repetition of the enema the following day at the same hour will secure another satisfactory evacuation. The result obtained will vary with the manner in which this measure is employed, but in many cases, the normal activity of the bowels can be restored. In other cases, even if a cure is not effected, the patient will secure a certain and painless method of emptying his bowels. It is to be regretted that the enema pipes generally sold are not supplied with a small bulbous-pointed flexible pipe ten or twelve inches in length; with such an instrument an enema could be thrown directly into the sigmoid flexure, and all danger of over-distension of the rectum would be avoided.—*Cinn. Lancet and Clinic.*

PHYSIOLOGICAL ALBUMINURIA.—Professor Leube (Virchow's Archiv. Band LXXII., Heft 2) found that out of 119 healthy soldiers, 5 or 42 per cent. had albumen in the morning urine; while 19 out of 119, 16 per cent. had albumen in their midday urine, after marching on parade. There were no casts or blood

corpuscles; the chief deposit was urates. The specific gravity showed no constant results. Those soldiers in whom albuminuria was found, were carefully examined, and were found to be quite free from pathological changes. The albuminous substance was discovered in the ordinary way, by boiling and acetic acid, but gave the reactions of serum albumen when separated and subjected to the tests.—*London Medical Record.*

NERVOUS DYSPEPSIA.

W. O. Leube states that many healthy persons experience peculiar nervous symptoms, as cerebral congestion, disinclination to work, weariness, fullness in the epigastrium, etc., immediately after eating.

These symptoms appear too soon after meal-time to attribute them to the absorption of certain products of digestion (e.g., lactic acid), causing a self-poisoning of the nervous system. It is more likely that they depend upon direct irritation of the nerves of the stomach by mechanical irritation from the ingesta; it is known that in physiological experiments the general nervous system is sometimes affected by direct irritation of the gastric nerves. The symptoms above mentioned become pathological when they reach a certain point, which they usually do as a result of perceptible gastric troubles, as catarrh, ulcer, cancer, etc., but occasionally without any perceptible cause, in which case Leube calls the affection nervous dyspepsia. The condition is usually found in persons whose nervous system is easily excitable, in the upper classes, during the earlier years of puberty, and frequently accompanying other nervous troubles.

This affection is distinguished from catarrh in that the appetite and digestion are undisturbed; from cancer of the stomach by the age, and the absence of cachexia or tumour; from ulcer by the absence of pain and by the happy effect of electricity; finally, it is distinguished from enlargement of the stomach by physical examination (Leube's examination with the sound). The prognosis of nervous dyspepsia is not very favourable, and we must often be satisfied with relieving the condition without being able to cure it.

The treatment consists in an easily digestible diet, ice, quinine, electricity, hydropathy. In one case, ergotine acted favourably. As a subsequent regimen, sea-bathing or mountain air may be recommended.—*Abh. für die Med. Wissen*, 1879. No. 23; from *Deutsches Archiv f. Klin. Med.*

LIPEMIA AND FAT EMBOLISM IN THE FATAL DYSPNOEA AND COMA OF DIABETES.

BY PROF. SANDERS AND D. J. HAMILTON, M.B.

In 1874 Prof. Kussmaul first drew attention to the occasional occurrence of dyspnoea in diabetes, often of terrible intensity, which, after a time, ended in coma and death. Previously the profession had learned to recognize death with thoracic symptoms as among the dangers which beset the unfortunate diabetic; and these symptoms and this mode of death, when not clearly due to cerebral hæmorrhage had been ascribed to uræmia and rapidly occurring pneumonia—"pneumonie foudroyante." Careful analysis of the symptoms noted during life, and the evidence of autopsies, led Kussmaul to the conclusion that the coma was not accounted for by uræmia, and the dyspnoea was not pneumonic, and reasoning on these facts led to the conviction that they were due to some profound alteration of the blood.

The peculiar chloroform smell of the urine and excreta were attributed by Petters (1857) to acetone in the blood, and the coma and death were referred by him to acetone poisoning. Kaulich (1860) found this substance in various diseases, and beside being present in the urine, expired air, &c., &c., found it in the stomach—the result he thought of the fermentation of grape sugar. But it was noticed that the symptoms of acetone poisoning, apathy, somnolence, and especially *weakness and slowness of the respiration*, were dissimilar to the phenomena of diabetic dyspnoea described by Kussmaul. To determine this matter Kussmaul subjected animals to a series of observations, and he found that when it was inhaled or subcutaneously injected that it produced intoxication and stupor—not anæsthesia. Its effects were those of alcohol rather than chloroform;—that it was more potent and more volatile than the former, and that owing to its extreme volatility it was rapidly carried off by pulmonary exhalation. In moderate quantities it caused intoxication with slow respiration. In profound acetone poisoning there was stupor, but the respiration was slow, and slightly stertorous—the respiratory movements were unusually deep, and

subsequently irregular. Kussmaul thought the coma, in these observations, resembled that of diabetes. It struck him, however, that the symptomatology of acetone had not been worked out in man—that its action was transient, and to produce the physiological and toxic effects noticed the quantity required would be as large as that of alcohol. He doubted if so volatile a matter could be shown to accumulate sufficiently in the blood to act the part of a poison, and apparently anxious or willing to accept the acetone theory, he suggested that its long continued introduction into the blood might produce chronic poisoning, which might have acute outbursts as in cases of chronic alcoholism and delirium tremens.

The phenomena of an exceedingly well marked case of thoracic dyspnoea are detailed, and are here given as they are calculated to be of general interest. A farmer, aged 24, had been diabetic for four years. Under treatment, the diabetic symptoms underwent amelioration, the sp. gr. of his urine falling from 1.040 to 1.025, still there was gradual failure of muscular power, not accounted for by the quantity of urine or per centage of sugar. He had gastric attacks with spasmodic pains in stomach and bowels, acidity, occasional vomiting. An attack of alarming dyspnoea occurred about 1.30 p.m., and Prof. Sanders saw him at midnight. Patient was sitting up in bed with intense dyspnoea. Both respiratory acts were of extraordinary fulness and depth, exactly like those of a man who had won a mile race. The thoracic movements were free to excess. The air-hunger was so great that no violence of effort could satisfy it. The air entered the chest with perfect freedom, respiratory murmur everywhere, distinctly audible, no rales were present. The breathing was panting, as in a person out of breath from over exertion; but there was no stertor or abnormal sound. Respirations 30, regular, pulse 100; temperature over 100, face flushed, lips livid. No clue for explanation was furnished by auscultating the heart. Stimulants antispasmodics failed to give relief—the dyspnoea continued during the following day—there was a little delirium, but not marked.

the surface grew cold, his hands and lips blue, breathing continued rapid, growing more superficial, he became unconscious, and about 36 hours after the advent of the dyspnœa, died. During the attack he passed urine freely, and a peculiar vinegar-like smell was noticed in the room. No autopsy was made.

Prof. Sanders admitted into the Royal Infirmary a patient, æt. 20, with advanced diabetes, November, 1878, and carefully watched the progress of the case. Symptoms of dyspnœa came on and the patient died the next day. This was not so intense a case, so far as dyspnœa was concerned, as the preceding—the symptoms were, however, precisely similar in kind. As has been observed in innumerable cases of diabetes the blood in this presented the peculiar pink colour with separation of a milky or cream-like serum, and which have been especially noticed in so-called cases of acetonæmia. Arrangements had been made for determining the quantity of acetone in the blood. But the fatty condition of this fluid suggested the possibility of fat embolism, affording a more satisfactory explanation of the dyspnœa, than that furnished by the acetone theory, and the same idea had occurred independently to Mr. Hamilton. Externally, the only note-worthy appearance was the dry and apparently desquamating appearance of the cuticle about the shoulders. The right heart was distended with blood, which, with the exception of a few isolated and pale yellow coagula, was fluid. When removed from the heart it had a pinkish colour, and in appearance resembled prune juice and curdled milk. On standing for half an hour it separated into two about equal strata, the upper milk white, the lower deep pink in colour. Blood escaping on the table presented the same appearance, white on the surface, a stratum of deep pink beneath. After standing twenty-four hours the upper stratum was of a light pinkish gray colour. At first the odor exhaled by the blood was variously compared to vinegar or sour beer—after about a quarter of an hour the odor was of decidedly ethereal nature, markedly like acetone. Microscopically, the upper milk like stratum, when first removed from the body was found to be composed of a fine chyle

—like emulsion of oil globules suspended in a fluid, some large, others finally divided as in chyle. Ether by dissolving the oil, removed the milk white colour, leaving a hazy precipitate, which appeared to be of an albuminous nature. Examined after a day the oil globules were much larger, from several running together, and many were twice or three times the size of blood corpuscles, a finely granular precipitate, evidently of an albuminoid nature, held the oil globules loosely together. The oil globules became black on the addition of perosmic acid. The ethereal or acetone odor appeared stronger the next day, and continued for a week. The deeper stratum of blood showed oil globules and blood corpuscles mixed, the latter apparently unchanged. The lungs and all other viscera emitted the same acetone odor, the odor being, however, most marked from the lungs. The blood from the larger vessels in the congested lungs presented the appearances already mentioned. When examined in the fresh state, the greater number of capillaries on the alveolar walls were found filled with oil globules which had been turned black by the addition of perosmic acid. In many of the smallest branches of the pulmonary artery, oil globules of large size were also seen, filling the lumen of the vessel, and occluding it, as in a case of fat embolism from a fractured bone. In certain areas nearly every vessel appeared to be choked in this way.

The kidneys were large and flabby in consistence. The capsule stripped off easily, leaving a mottled surface with congested, stellate venous radicles. On section the cortex had a pinkish grey colour, while the medulla was somewhat congested. The examination of the liver, spleen, stomach and brain, presented nothing special.

Portions of the organs were placed in various hardening fluids, preparatory to microscopic examination. With a low power (50 diameters) nothing of note was seen in the general appearance of the pleura and lung tissue. The air vesicles were unaltered in shape and empty. The pulmonary arterioles, as well as most of the capillary vessels of the alveolar walls were filled with a material of a globular nature

which turned black with a solution of perosmic acid. This was the general appearance, but here and there in each microscopic section were areas in which nearly every capillary contained this black stained material. On examination with a high power (300 diameters) it was evident the globules were oil, and that the perosmic acid had stained them black. The oil globules varied in size, some being considerably less, others many times larger than the blood corpuscle. Several plexuses were filled with a continuous mass of oil, so that their ramifications on the alveolar wall looked as if injected with ink. The oil globules were generally separated from each other by a finely granular matter, this matter was evidently albuminoid, and was soluble in potash and acetic acid. There was a constant tendency in the larger globules to spread out and adhere to the walls of the capillaries, while the smaller remained free in the centre of the lumen. In the vessels occluded by the oil globules, blood corpuscles were rarely noticed. They did not seem to have undergone any alteration.

The kidneys on microscopic examination showed healthy renal structure. The only abnormality was in the contents of the blood vessels. A low power showed numerous oil globules in the vasa recta, while more highly magnified, the former were noticed lying in the vessels in the midst of a granular precipitate. The Malpighian bodies were usually free of oil—here and there, however, a loop of capillaries within a Malpighian tuft was plugged. The liver cells were not more fatty than usual; a little oil was noticed in the larger branches of the hepatic artery. Nothing noteworthy was found in the brain or medulla.

The most remarkable points brought out by the *post mortem* examination of this diabetic are,—First, the peculiar condition of the blood; and second, the "fat embola" in the vessels of the lungs and kidneys. The small vessels were not only plugged with the oily embola, but in the larger and middle-sized arteries, the oily globules spread themselves out on the wall of the vessel, and adhered to it. Such an obstruction must be a serious impediment to the flow of arterial blood, and when we examine the state of the capillaries and find how

each vessel contains usually one or more oil globules, the conclusion is reasonable that we have here a most effectual embolic plugging of the pulmonary arterial system. The kidneys contained a few oil globules; but the lungs seemed to have arrested most of them probably on account of the great abundance of its capillary net work.

In a patient, aged 10 years, in the hospital for sick children, and who presented no alarming symptoms, dyspnoea coming on terminated fatally in coma in three days. The blood presented the same appearances as in the case above alluded to—the acetone or sour beer odor was noticed. When tested for acetone the reagents revealed its presence in only the merest traces. A microscopic examination was not made.

These *post mortems* appear to prove that the peculiar terminal dyspnoea and coma of diabetes are due to lipæmia and fat embolism, and not to acetonæmia. For these reasons,

1. The lipæmic state of the blood.
2. The anatomical evidence of fat embola, chiefly in the minute pulmonary vessels and capillaries, and to a less extent in the kidneys and other organs.
3. The entire similarity of the histological appearances in the lungs to those found in fatal fat embolism from fractured bones.
4. The similarity in the symptoms (dyspnoea and coma) in fat embolism from fracture and diabetes. It is admitted that more precise information is desirable—while it is claimed that the published descriptions of the phenomena, observed in the two conditions, are so nearly identical as to establish a strong argument in favour of similar pulmonary conditions.
5. The quantity of acetone found does not appear to be sufficient to account for the symptoms.
6. Acetone added to the blood does not produce either the naked eye or the microscopic appearance of lipæmia.
7. Acetone administered to rabbits produces the phenomena of alcoholic intoxication, the laboured breathing does not present the intensity of the severe diabetic dyspnoea.
8. In animals poisoned with acetone the blood does not present any appearance, naked eye or microscopic, like the peculiar blood of diabetes.—*Abstracted from Ed. Med. Journal.*

RETROGRESSIVE LYMPHADENOMATOUS GROWTHS.

At a recent meeting of the Pathological Society of London (*Med. Times and Gazette*, May 17, 1879) Dr. Coats, of Glasgow, exhibited for Dr. Gairdner, specimens of tumours taken from a man aged fifty-two, who had been under the care of Drs. Thomas and Norrie, of Dumfries. About twelve or fourteen months before his death, the patient began to observe tumours in his abdominal wall, the tumours appearing and disappearing at intervals, according to his own account. After six or seven months he was seen by Dr. Thomson, who then found a large tumour, four inches by three, in the abdominal wall, near the anterior-superior spine of the ilium, having the characters, when first seen, of a fatty growth; it was repeatedly examined at short intervals for a week or two, but after a few months had passed could not be seen at all when again looked for. Ten months after the first appearance of these swellings the patient's general health began to fail, and he suffered from sickness and vomiting. He was now seen by Dr. Gairdner, who found as many as thirty-four tumours over the body, most of them being situated subcutaneously, though some were deeper. The patient's sickness and vomiting continued, and death took place soon afterwards. Post-mortem there were found numerous tumours, not only in the subcutaneous tissues, but also in the connective tissue of the abdomen. In the fatty capsule of the right kidney there were several, quite distinct from both the kidney and from the supra-renal capsule. The left supra-renal body was apparently involved in a mass of similar tumours, many of which were breaking down like blood-clots. One large tumour almost occluded the calibre of the intestine, and there were several in the mesentery. He (Dr. Coats) had found the tumours composed of a coarse reticulum, in which there were many round lymphoid cells. The tendency seen in several of them to hemorrhage and breaking down might possibly explain the absorption and disappearance of those that had vanished during the life of the patient. The exhibitor requested that the specimens be referred to the Morbid Growths Committee.

Dr. Norman Moore asked whether any change had been observed during the life of the patient in the condition of the blood. In a recent case in St. Bartholomew's Hospital, where there had been many tumours in various parts of the body, among them a large one near the kidney, the white blood-corpuscles had been found markedly increased, though hardly to the degree characteristic of leucæmia. But in that case there had been no history of absorption of the tumours.

Dr. George Thin had seen a case at Vienna, in the *clinique* of Hebra, exactly similar to the one reported by Dr. Coats, only there was even a greater number of superficial tumours in the former than in the latter case. That one had been unique in Hebra's experience, and there was much discussion as to its real nature. Post-mortem, many growths had been found in the cellular tissue of the abdomen, as in Dr. Coats's case. Some of these had been sent to Ranvier of Paris for examination, and he had declared them to be lymphoid in character. He (Dr. Thin) did not see that such growths should necessarily be considered lymphoid, although they were found to contain lymphoid cells, for any inflammatory lesion under the skin would be attended with the exudation of white blood-corpuscles. Another case has just been reported by Dr. Dubring, of America, under the name of inflammatory neoplasm, which also seemed from the microscopic description to be of a similar nature.

Sir James Paget said the report of such a case was useful, and likely to help in the explanation of those rare instances in which tumours diagnosed to be cancerous had disappeared after a time. He suspected that there was a greater number of such cases on record than might be imagined, and the collection of them would be an interesting and important undertaking. Three cases of the disappearance of tumours in this way were known to himself. One was in the person of a young man, who had suffered for two or three years with what appeared to be ordinary lymphadenomatous growths, there being clusters of enlarged glands in the neck, axilla, and groins. The patient had also paraplegia—a symptom he had found in another case of lymphadenoma. Within a

week these tumours all suddenly disappeared, but the patient then began to suffer from dyspnoea, and soon afterwards died, no autopsy being allowed. Another case, mentioned in his lectures at the College of Surgeons, was regarded as one of multiple medullary cancer (what would now be called small-celled sarcoma), and the microscope corroborated this diagnosis. The growths occurred in the neck and axilla. There was also a very large mass over one deltoid, which suppurated and sloughed, during which process nearly all the other growths disappeared. The man recovered, and enjoyed good health for some months; but the growth afterwards recurred, and caused death. The third case was one which he had diagnosed as medullary cancer of an undescended testis. There was a tumour as large as two fists, and he had prescribed liquor potassæ and iodide of potassium, under which treatment the mass soon entirely disappeared. In eight or ten weeks, however, it recurred, but disappeared again under the same treatment. This also happened a third time; but, having recurred a fourth time, it was no longer amenable to treatment, and the patient died. The microscope confirmed his original diagnosis as to the nature of the growth.

Dr. Wilks also thought that such cases were not so very rare as was thought. There was at present in Guy's Hospital a girl who had had tumours of the arm, shoulder, and groin. All the tumours had disappeared except that of the arm. He had regarded them as of a lymphoid character. Many years ago he brought before the Society a young woman who presented at first a number of soft tumours over the body, which afterwards disappeared. These were regarded at the time as blood-cysts, but they may have been of the nature of these lymphoid growths.

Mr. Butlin recalled the case of a boy he had already brought before the Society, in which there had at first been tumours in the parotid region, and afterwards in the testes and abdomen. All the tumours were found to be lymphosarcomatous on microscopic examination. The left testicle had increased in size till death; while the other had diminished somewhat though not entirely. He had found

the pelvic glands much more affected on the right side than on the left, and he had a notion that this difference was connected with the changes of the testes, those on the right side having probably become more involved as they relieved the testicle of that side of its morbid products, whereas on the left side the testicle had gone on unrelieved.

The President mentioned that, in the discussion on lymphadenoma, Sir W. Gull had stated very prominently that he had seen spontaneous disappearance of lymphoid tumours in this way.

Dr. Barlow mentioned the case of a boy in which lymphadenomatous tumours of the mediastinum, which had deflected the trachea from the middle line, rapidly disappeared at that site before death. He had seen another similar case attended with considerable pyrexia. In a third case, a patient of Dr. Stephen Mackenzie, the tumours had rapidly disappeared under arsenic.

Dr. Stephen Mackenzie corroborated the last statement. The patient, after taking fifteen drops of liquor arsenicalis daily for a week, began to improve, and after a fortnight the swellings diminished so rapidly that the patient declared most of the diminution had taken place in a single night. He believed the patient was now quite cured. Another case, presenting subcutaneous tumours believed to be of syphilitic origin, had been treated with iodide of potassium, and in three weeks the tumours had entirely vanished. Syphilitic growths were of course very similar histologically to these lymphadenomatous tumours, and when the former disappeared so quickly with iodide of potassium, he thought it need not be wondered at if the latter should also be found to disappear very rapidly.

Dr. Wilks wished to add his testimony to the great value of arsenic in these cases of lymphadenoma. All the cases he had seen improve had been treated with arsenic.

Dr. Coats, in reply, could not say whether the blood had been examined during the life of the patient. The object in view in bringing forward the case had been already in a great measure attained by the interesting discussion it had called forth.—*Abstract.*

PLEURITIC EPILEPSY AND HEMIPLEGIA.

In 1875, M. Raymond read before the Société des Hôpitaux two very interesting observations on the subject of patients who were suddenly seized with convulsions and hemiplegia, some time after having been operated upon for empyema, while injections were being made into the pleura. Several similar facts have since been observed which M. Aubain has, together with a case which had come under his own observation, worked up very successfully in his thesis (*Thèse de Paris*, 1878, and *Journal de Médecine et de Chirurgie*, February, 1879). The *modus operandi* is as follows: A patient who has been suffering from purulent pleurisy, and on whom the operation for empyema has been performed, has his wound washed out every day with some disinfectant. He bears these injections without experiencing any inconvenience or pain for a month, six weeks, or more, when suddenly, without any premonitory warnings, the patient, who is sitting up in bed while the injection is being made as usual, falls backward in a state of imminent syncope. In a very short time convulsive spasms come on; they are almost always universal, but generally stronger on the side which corresponds to the empyema. The patient's teeth are set, the pupils which have at first been contracted are subsequently dilated. The tonic convulsions are followed by contractions; the breathing becomes stertorous, the patient foams at the mouth; urine and feces are passed involuntarily; he remains in a state of epileptic coma for half an hour or an hour, when he again recovers consciousness. Sometimes nothing more occurs, or another similar fit may supervene the same day, or two or three days later, without any injury to the patient. But in some very serious cases the patient does not recover consciousness; fit follows fit; the contractions persist; in a few opisthotonos has been observed, and the patient dies in ten or fifteen hours. This is termed pleuritic epilepsy. In some cases, however, another phenomenon has been observed in connection with those already mentioned, viz., hemiplegia. It may affect only one of the lower or superior extremities, or the face, the paralyzed members always being on the side

which corresponds to the empyema. Motility is seldom entirely abolished, so that the affection might perhaps rather be defined as a certain degree of paresis, without any distinct disturbances of the sensibility. It is transitory, and if the patient recovers from the attack it also disappears a few days later. Lastly, there is a third class, in which the hemiplegia comes on gradually without any preceding convulsions. The symptoms are the same as above, but the affections always disappear entirely after a certain time. That these accidents are very dangerous, is demonstrated by the fact that four out of the ten cases mentioned by M. Aubain have terminated fatally. At the necropsy, no cerebral lesion which might account for the fatal issue could be discovered; the pathogenesis of the cases is also very obscure. It is very curious that these accidents should always happen when the patient is almost convalescent, and at the moment when the injection is being made. In order to avoid this complication great care should be observed in making the injections into the pleura. Very small quantities of the liquid must be injected at a time, and not too much force used in the operation.—*London Med. Record*, May 15, 1879.

CHONDROSIS OF THE AURICLE.—An interesting case in veterinary pathology, and which has an important bearing on human physiology, is recorded by Mr. Hugues in the *Journal de Médecine de Bruxelles*. The right auricle of a horse, aged six years, was found to be completely cartilaginous, being composed of three pieces of cartilage closely united to one another by fibrous ligaments. The largest had the curvature of the corresponding ventricle, the outer surface being convex and the inner concave; it measured 14 centimetres by 9; the second piece measured 7 centimetres by 4. In no part could any trace of muscular fibres be discovered. The horse died of acute pleurisy, myocarditis, and pericarditis, consequent on a long drive after a journey, and until the commencement of the illness, a few days before its death, it appeared to be in perfect health. Mr. Hugues points out very pertinently that the case strikingly illustrates the passive rôle of the auricles in the action of the heart.—*Lancet*, June 14, 1879.

ON THROMBOSIS.

In some lectures given at the Hôpital des Enfants-Maladies, M. Bouchut (*Gaz. des Hôpitaux*, March 13, 20, April 3, 1879) dwells on the subject of thrombosis of veins in cachectic and chronic maladies; a subject which he first wrote on in 1844. Instances of this are very numerous; not only do they occur in the lower limbs, but in the iliac veins, the portal vein, the jugular, the pulmonary arteries, the sinuses of the dura mater, and in the right cavities of the heart. The symptoms of this thrombosis of course differ with its seat: thus, in the pelvis, it may cause swelling and pain in the lower limbs; in the vena cava, intestinal hæmorrhage; in the brachio-cephalic and the jugular, hæmoptysis. So in the sinuses of the dura mater this cachectic thrombosis produces convulsions in the child and delirium in the adult. M. Bouchut gives a *résumé* of 68 cases in illustration of this last statement, in all of which *post-mortem* examinations were made. He admits with Lancereaux that there are thromboses of inflammatory origin, and those due to retarded circulation; but confines himself to those of the latter class, which he has had an opportunity of observing frequently and carefully in children. The affection begins at the end of acute diseases, and in the course of chronic ones, with sudden convulsions of short duration, or with delirium of a more or less marked kind, announcing the approach of death. Convulsions are seen in these cases up to the age of about seven years; while delirium is met with only in older children and adults. In the 38 observations of final convulsions in children affected with different cachectic diseases, 35 had thrombosis of the sinuses, and three overflowing with blood and encephalitis. The cases occurred under the following heads. Final convulsions from thrombosis of sinuses, 35 cases; chronic enteritis, 5; measles (catarrhal pneumonia), 2; chronic pneumonia, 5; phthisis, 8; anasarca without albuminuria, 1; chronic albuminuria, 2; whooping-cough and pneumonia, 7; scrofulous cachexia and tubercle of the bones, the lungs, and the intestine, 1; gangrene of the mouth, 1; diphtheria, 2—35. Convulsions, with stasis of blood in the sinuses without thrombosis: chronic pneumonia, 1; whooping-cough, 2—38.—*London Med. Record*, June 15, 1879.

PATHOLOGY OF ADDISON'S DISEASE.

In the *Archiv de Physiologie Normale et Pathologique*, 1878, Nos. 5 and 6, M. Jacquet arrives at the following conclusions: 1. In Addison's disease, the bronzed skin one finds only as a lesion of the sympathetic system, and pigmentation, without atrophy, of the nervous cells of the ganglia which are in the neighbourhood of the diseased suprarenal glands. 2. The degeneration of a part of the nervous fibres attaching the semilunar ganglia to the nervous centres ought to be regarded as secondary and consecutive to the process of sclerosis which accompanies the tuberculization of the capsules. 3. That lesion is insufficient to serve as the basis of a pathogenic theory of Addison's disease. 4. Hyperpigmentation of the nervous cells of the great sympathetic and of the cerebro-spinal system is a fact of the same order as the hyperpigmentation of the epidermic cells of the Malpighian plexus. 5. This hyperpigmentation renders probable the existence of an alteration of the blood by the substances which a suprarenal gland would, in the normal state, be employed in utilizing by transforming them. 6. The alteration of the blood by functional or organic insufficiency of the suprarenal glands is a pathological phenomenon analogous to that which exists in chronic uræmia. 7. Alongside of the melanoderma, by alteration of the suprarenal tissue, there seem to exist cases in which the melanoderma is due to the lesion of other blood-making organs. 8. Clinical researches in Addison's disease ought especially to be directed to the chemical analysis of the blood and the urine.—*London Med. Record*, April 15, 1879.

THE USE OF IRON IN CERTAIN STAGES OF CARDIAC DISEASE, AND THE ADVANTAGE OF COMBINING CHLORIDE OF AMMONIUM WITH IRON.—In a very interesting and instructive paper (*Practitioner*, August, 1879) Dr. T. Grainger Stewart, Prof. of Practice of Physic in the University of Edinburgh, draws attention to two points. First, that in certain cardiac cases, particularly those in which the aortic valves are diseased, a peculiar condition sometimes arises which demands for its treatment large doses of iron. Second, that in some cases, both belonging to the above group and of other kinds, the reception of iron by the system is greatly facilitated if chloride of ammonium be administered along with it.—*Abstract*.

Surgery.

MALIGNANCY IN TUMOURS.

BY P. W. VAN PEYMA, M.D.

* * * As to the character of cancer cells, I quote also from Green: "The cells are characterized by their large size, by the diversity of their forms, and by the magnitude and prominence of their nuclei and nucleoli. In size they vary from 1-600 to 1-1,500 of an inch in diameter, the majority being about five times as large as a red blood corpuscle. They are round, oval, fusiform, polygonal—exhibiting in short every diversity of outline. * * * The nuclei, which are large and prominent, are round or oval in shape, and contain one or more nucleoli. The nuclei are perhaps most frequently single; two, however, are frequently met with, and in the softer and more rapidly growing cancers, they may be much more numerous. The cells rapidly undergo retrogressive changes, hence they usually contain molecular fat. They are many times exceedingly destructible, so that sometimes more free nuclei than cells are visible. Cells precisely similar to these are met with in other morbid growths, and also in normal tissues. *There are thus no specific "cancer cells."* It is the general character of the cells, together with their mode of distribution in the meshes of a fibroid stroma, that determines the nature of a growth to which they belong. "The appearance presented by these cells grouped within the alveoli of the cancer sometimes closely simulates in the earlier stages of growth that of simple adenoma," only here the cells are less irregular and more like the normal. It will be noticed that the quotation denies explicitly the existence of a *cancer cell*, that is, a cell characteristic of this growth. On the contrary it is exactly this want of anything characteristic; the great variety of shape and size and condition, which is to any extent peculiar. Add to this the arrangement in alveoli, formed of connective or fibrous tissue, and we have all that is in any sense characteristic of cancer, from a histological standpoint. And even this is not as much so as could be wished. We have already noticed its resemblance to adenoma. Wagner says,

"The alveolar structure of cancer was long regarded as especially characteristic. This, however, is not the case. Adenoma also, and many sarcomata and cystomata, show an alveolar structure. To draw conclusions from the alveolar texture of new formations, it is always necessary to consider the structure of the mother tissue." And, in summing up, he concludes as follows: "From these characters it follows that at the present time there are no strict histological peculiarities. At the present time the notion connected with the cancer is especially clinical, not anatomical."

In now closing our anatomical description of sarcoma and cancer with a short notice of the course and relation of the blood-vessels and lymphatics, we are led to remark a very interesting anatomical difference between the two growths; and one having an important bearing in pathology. In the sarcoma the vessels are not supported by a stroma, as is the case in cancer, but ramify among the cells of the growth, hence the facility with which these tumours become generally disseminated. On the other hand, according to Cornil and Ranvier, the lymphatics communicate directly with the alveoli of cancer. This explains the tendency of cancer to infect lymphatic glands.

We now come to the subject proper, viz: malignancy. Its definition has already been given—a tendency to spread rapidly and to recur after removal. The questions now are upon what does this depend, and why are certain growths more malignant than others. From what has preceded our answer may possibly have been anticipated—that it depends upon the transmission of certain elements, probably cellular, to different parts of the body. This is possible and actually occurs in three ways.

- I. Locally by simple extension of the growth.
- II. By means of the lymphatics.
- III. By way of the blood-vessels.

"As a general rule, the more juice, or cells a growth contains, and the richer it is in blood-vessels and lymphatics, the more quickly will it infect the lymphatic glands and internal organs," and conversely. In addition to this another point must receive consideration, viz: the difference in the mode of growth of tumours. The proportion of central and peri

pheral growth is not the same in all tumours. Cancers and sarcomata are characterized by a predominantly peripheral growth. Other things being equal, a peripheral growing tumour is more malignant than one whose growth is central. The reason of this is obvious. A centrally growing tumour has its active proliferating cells surmounted by a zone, in many instances a capsule of inactive, if not dead material; while in the case of the peripheral growing tumour the active multiplying and infecting cells are at the peripheral in immediate contact with the surrounding tissues. The absorption of the elements of the primary growth has, according to Wagner, been demonstrated. He says: "For some cases it has been demonstrated with certainty that cancer masses as a whole, and cancer cells especially, which are free in the blood-vessels, having been transported thence and deposited in other parts, become the cause of cancerous formations." He gives similar testimony as to their entrance into the lymphatics. Their mode of action after reaching the part is, according to Green, "by virtue of an influence on the cells of the tissue where they lodge, which may be termed spermatoc influence, and which is strictly comparable with that of the sperm cell in the ovum." That is, it excites the cells of the part to a peculiar activity and multiplication.

In conclusion, let me call attention to one of the practical points intimately connected with the subject:

If the views contained in this paper are correct, any expert to whom we may hereafter carry a specimen for examination, will not say "this growth is malignant, or this growth is benign and harmless." He will rather express his opinion in relative terms, as, for example, "The specimen which I have examined is more or less abundant in cells; their character, as to shape, more or less adapts them for absorption; the arrangement of its blood-vessels and lymphatics is such that they will or will not greatly facilitate absorption and infection of neighbouring tissues; the extent of the degeneration and breaking down of cells, and the comparative number of multinucleated cells and the small round cells, to the exclusion of any decided tendency to elongate and

develop, prove its more or less rapid growth and destructive power." The consequence will be that we shall watch all morbid growths with a view to their malignancy, being especially fearful of those possessing the above properties in a marked degree. The question will no longer be, is the growth malignant or benign; but to what degree is it malignant, that is, liable to recur, to spread and be destructive.

The main object of the paper has been, by means of an example, to call attention to the fact of transition as seen in pathology.

Many of the positions taken being contrary to the views held by the majority of medical practitioners, more particularly those who have not given the subject any special study, I have felt warranted in making numerous authoritative quotations.

In the opinion of the writer, more attention should be paid to general principles, both in disease and therapeutics. The result would be a diminishing amount of superstitious belief in specifics and a growing clearness of vision in matters medical.—*Buffalo Medical and Surgical Journal.*

PRURIGO FORMICANS.—Dr. Hillairet, lecturing at the St. Louis Hospital (*Rév. Méd.* May 3) on a case of prurigo formicans, occurring in a youth of twenty who had been tormented with it since he was six years of age, observed that he could not agree with Professors Bazin and Hardy in believing that this inveterate form of prurigo is curable. In all the cases which he has met with that have commenced at an early period of life, every means that has been tried has failed in effecting a cure, although temporary alleviation may be obtained. The treatment which he has found most successful in attaining this latter object, although a painful and disagreeable one, succeeds in giving relief, which may last two or three months. It is that employed for the rapid treatment of itch. First, the whole of the body is thoroughly washed with "black soap," and immediately afterwards a prolonged bath is taken. On leaving the bath the patient is thoroughly rubbed with sulphur ointment. Next day the same treatment is repeated. It is then suspended for two days, when it is again put into force for the last time.—*Medical Times and Gaz.*

Midwifery.

A CASE OF OBSTINATE ULCERATION OF THE NECK OF THE UTERUS CURED BY GRAFTING.

The patient was a prostitute who had been previously treated for pelvic peritonitis. Examination with the speculum showed that the neck of the uterus was very much enlarged and hard, and around the os was a circular ulcer seven-eighths of an inch in diameter, and longer in the vertical direction; its surface was studded with bright red, healthy granulations. The ulceration was treated in a variety of ways for one and a half months without producing the slightest benefit. Grafting of the mucous membrane was then resorted to in the following manner: A small fold of mucous membrane was stripped off from the side of the vaginal wall, and was cut in two. The granulations on the ulcer having been scratched below and to the left of the os, the pieces were embedded in the granulations by means of an instrument used for tying deep sutures. Another piece of membrane was cut off and embedded in the granulations above the os. The speculum was left in position, and the patient kept on her back for an hour, at the end of which time a large tampon of cotton, moistened with pure glycerine, was placed against the ulcer, and the speculum was withdrawn. Strict quiet in bed was enjoined, and the tampon was removed the next morning. Five days afterward a pellicle of newly-formed mucous membrane was found to have formed from the three grafts. The remainder of the ulcer retained its red granular appearance. Three days later, the ulcer was all covered with new mucous membrane, except a narrow rim just above the external os. A fresh piece of vaginal mucous membrane was now placed in each external angle of the os and treated in the same manner as previously. When examined, a month later, the site of the ulcer was entirely covered by new mucous membrane.—*Archives of Medicine*, Dr. R. W. Amidon, April, 1879.

The London Lancet says: "It is intolerable that a qualification in England should not be a qualification in Canada.

PURPERAL THROMBOSIS.—I will not intrude upon you other analogies. Many will present themselves to your minds. I will only hint at the close pathological relations between these cases of so-called phlegmasia dolens in childbed women and septicæmic puerperal fever, pelvic cellulitis, and pelvic peritonitis and inflammations of other serous membranes. Phlegmasia dolens may be taken as the type of what I long ago proposed to call the "autogenetic" puerperal fever, in contradistinction from those fevers which owe their origin to empoisonment from without, the "heterogenetic" fevers. But we must not forget that phlegmasia dolens may ensue upon the ingestion of foreign poisons. The great clinical lessons illustrated and enforced by the very imperfect remarks which I have been invited to submit to you are these:—

1. The origin of phlegmasia dolens in lying-in women can mostly be accounted for by processes springing up in her own system.
2. The blood of the recently delivered woman is in a state highly prone to coagulate.
3. It will coagulate when it is invaded by effete materials or septic matter in undue proportion to the excretory power of the system.
4. Such undue proportion will accumulate when the free action of the great excretory organs, the breasts, lungs, liver, kidney, skin, and mucous membrane of the intestines is greatly impaired by chronic antecedent imperfection, or is suddenly checked under the influence of cold, emotion, or other form of shock. To anticipate these causes, to prepare and keep the glandular system in good working order, to prevent the accumulation of poisonous matter in the blood, is the obvious indication, one which we ought to be able in most instances to carry out. The theories or hypotheses of thrombosis arising under conditions other than puerperal must be in harmony with what is observed in puerperal thrombosis.—*Dr. Barnes, in Brit. Med. Journal.*

COMPOSITION OF VARIOUS FOODS FOR INFANTS.—Dr. N. Gerber, of Thun, has published a table of the most usually employed foods for children sold in Switzerland, from which we abstract those which we presume are more or less familiar to our readers:

I. Condensed Milk.

The numbers in the first column represent:

1. Anglo-Swiss Condensed Milk Co., Cham.
2. Swiss Condensed Milk Co., Freiburg.
3. Condensed Milk from H. Nestlé, Vivis
4. Norwegian Condensed Milk Co., Christiania.
5. New York Condensed Milk Co., (Gail Borden).
6. American Condensed Milk Co.

No.	Water and volatile Substance.	Salts.	Fats.	Albuminates.	Sugar.
1.	26.14	2.05	9.92	11.90	50.80
	24.70	2.11	6.02	9.77	57.46
2.	25.75	2.15	10.66	13.41	48.02
3.	25.28	2.03	8.62	10.25	53.32
4.	30.08	2.01	7.54	9.02	51.35
5.	27.72	1.81	8.61	9.92	51.84
6.	23.38	1.56	9.23	10.22	51.57

Of course, condensed milk is here understood to be that variety which is preserved by the addition of a large quantity of sugar, and put up in air-tight cans.

II. Farinaceous and other Food for Infants.

The numbers in the first column represents the following commercial substances :

1. H. Nestlé's Food for Infants, Vivis.
2. Kindermehl of Anglo-Swiss Cond. Milk Co., Cham.
3. Dr. N. Gerber's Kindermehl (Lacto-Leguminose).
4. H. v. Liebig's Malto-Leguminose.
5. Liebig's Kindersuppe.
6. Dr. French's Kindermehl.
7. Dr. Ridge's Food for Children, London.
8. Dr. Coffin's Food for Children, New York.

Nestlé and many others prepare their "food" from baked or roasted wheat-flour, and condensed milk.

No.	Water and volatile Substances.	Salts.	Fats.	Albuminates.	Carbohydrates, soluble and insoluble.
1.	6.36	1.85	4.75	10.96	76.08
2.	7.79	1.46	5.44	8.84	76.45
3.	4.5	2.3	5.6	18.20	65.70
4.	9.42	3.01	1.34	20.47	65.66
5.	40.44	1.71	0.82	8.41	48.61
6.	7.32	2.45	0.26	16.80	74.00
7.	3.98	1.13	1.95	9.05	85.59
8.	8.29	3.02	1.50	17.15	69.94

No. 6 is, according to the German patent, saccharated flour.

No. 7 appears to be only a mixture of various cereals (Gerber).

No. 8 consists mostly of the flour of Leguminosæ (Gerber).—From *Schweiz. Wochenschr. f. Pharm.*, No. 18.

TREATMENT OF INTERTRIGO IN CHILDREN

(*Deutsches Archiv f. Clin. Med.*)—Dr. A. Wertheimer divides the indications for treatment in these cases into two—1st, to allay the cause, and 2nd, to heal the existing lesions.

In speaking of the first, he mentions especially the good effect in cases accompanying dyspeptic diarrhea, of adding to the milk used a not-too-thick solution of barley-water—in the first two months about three to one, then to the fifth month, two to one, and later equal parts. For cleansing he used the ordinary baby-powder, or, when the surface is excoriated, a decoction of bran, not to be dried off. The usual zinc and lead salves he regards as harmful, and for fresh cases praises Hebra's ung. diachyli, while for more severe cases he always uses corrosive sublimate, which he finds always successful in the shortest time. He applies on cloths a solution of one grain to four ounces of water, applying fresh cloths three or four times a day, and letting them remain on for about an hour each time, or even keeping them continuously applied. He has never seen any evil effects from absorption of the sublimate.—*Journal of Obstetrics.*

DEMONSTRATION ON THE BEARING OF THE DISCOVERY OF A THIRD CORPUSCULAR ELEMENT IN THE BLOOD—By Richard Norris, M.D. (Birmingham).

Some of the principal points which Dr. Norris thought he had made out in regard to the blood by adopting new methods of examination, and which he demonstrated before the Association, were the following:

1. There exists in the blood, in large numbers, corpuscles which, being of the same refractive index and colour as the liquor sanguinis, are ordinarily invisible.
2. By certain methods of manipulation, they can be rendered visible in the field of the microscope.
3. These corpuscles are really chyle-corpuscles.
4. In the blood, they gradually obtain colour, and become ordinary red corpuscles.

Original Communications.

TREATMENT OF SYPHILIS.

BY R. S. TYRRELL, M.B., L.R.C.P., LOND., ENG.

So much has been written and said of this once dreadful disease that I approach the subject with a feeling of delicacy, and if it were not that I believe in the radical cure of syphilis, if properly treated, I would be very loath to enter on the subject at all, but as so many cases of the tertiary form present themselves from time to time, I feel it not out of place to offer a few suggestions through your valuable journal to my fellow-practitioners, from observations which I have gathered in hospital and private practice.

It is almost universally conceded that iodide of potash and mercury are the two principal medicines in the treatment of syphilis, and I am satisfied that the injudicious administration of one or the other, or both combined, is the cause of the lingering nature of the disease in a great many cases. I fear it is a too common practice to administer iodide of potash and mercury or mercury alone, with a view of combating the different forms of the disease, no matter what the character of the lesions may be. In many cases where one of these drugs would be amply sufficient, the other being combined proves detrimental, and thus the good action of the one is counteracted by that of the other; thus the patient lingers on, neither better nor worse. It would not further my object to consider in detail the therapeutical actions of these medicines, suffice it to say that where the one is beneficial, the other is, in the vast majority of cases, injurious.

Now, should a patient present himself with an ulcer either on a mucous or cutaneous surface, and having satisfied myself that it followed a Hunterian Chancere or assumed a syphilitic aspect, I at once place him under potass iodide, beginning with gr. v and gradually increasing up to xv or xx, three times a day. Wherever there is a loss of tissue as the result of syphilis potass iodide is the remedy, and mercury in any form will only increase the evil; whereas, in the treatment of nodes or tubercles, or any other form where there is an increase of tissue,

mercury and mercury alone ought to be the remedy.

I am well aware that potass iodide will frequently cause the disappearance of nodes, &c., but my experience has led me to believe that mercury will do so in a much more effectual manner, and I have seen potass iodide not only do no good, but aggravate the disease, and I have found that there is no better method of exhibiting mercury than by inunction and per orem combined; ung. hydrargyri well rubbed into the axillæ, morning and night, and calomel administered in $\frac{1}{2}$ gr. doses, three times a day, until the mouth shows indications to discontinue the medicine. This treatment I adopt in all forms of the disease where there is an increase of tissue; and where there is a decrease, potass iodide should be administered alone, or in combination with a little fl. ext quassia. I will cite one case to illustrate more plainly what I intend to convey.

N. F.—, æt. 45, contracted sore on penis about 15 years previous to coming under my notice, which was followed by evidences of syphilis. At the time he presented himself he was suffering from unilateral palmar psoriasis, and had been for two years previous. This, I think, is generally considered a tertiary form, and I discovered that during these two years he had taken a large amount of potass iodide alone, and also in combination with mercury, which failed to have the slightest beneficial effect. Now, here is a case of hypertrophy of tissue, which potass iodide alone and in combination with mercury failed to arrest. I at once exhibited mercury alone, in the manner I have already described, and in less than one month he had not the slightest trace of disease on his hand. I kept on the mercury until slight soreness of the mouth was produced. It is now two years since he has taken any medicine, and he informed me a short time ago that the disease had not returned, and he had enjoyed excellent health since he was under my care.

I merely cite this case as typical of many that have come under my notice, and trust that my few observations may be of some little benefit to my fellow-practitioners who may meet with long-standing cases.

Translations.

MEANS OF ARRESTING THE EPILEPTIC ATTACK.

At the *Société de Biologie* on 5th July, M. Brown Sequard said that he had learnt from a negro, that an attack of epilepsy may be arrested by pulling the great toe. Moreover, he had himself verified the correctness of the fact upon twenty-one patients.

AN ALCOHOLIC SOLUTION OF TANNIC ACID IN BALANO-POSTHITIS.

In the *Revista de Medicina y Cirugia Practicas* for 7th July, 1879, we observe a notice of three cases published by Sr. Rodriguez Viforcós in the *Revista de Especialidades*. The parts were bathed with a solution of common salt and afterwards dried. Application was then made of the alcoholic solution of tannic acid (equal parts) and cold fomentations ordered to be constantly used. Under this treatment the balano-posthitis disappears completely in four days.

PAINFUL DORSAL POINTS IN VARIOUS AFFECTIONS.

M. Vidal (*Soc. de Biol.*) has made upon several patients interesting observations upon the subject of the pain called *de correspondance* in certain affections. Thus, in simple ulcers of the stomach, the dorsal pain *de correspondance* is always found at the level of the spinous apophysis of the sixth dorsal vertebra. In hepatic colic the pain *de correspondance* corresponds exactly to the fourth dorsal vertebra. Lastly, in perityphlitis M. Vidal has several times established the existence of a painful dorsal point, situated at the junction of the second and third dorsal vertebræ on the left side.—*Le Progrès Médical*.

QUANTITIVE ELIMINATION OF THE OXIDE OF CARBON.

At the same meeting M. Gréhan made a communication relative to the elimination of the oxide of carbon in animals which had absorbed a large quantity of it. From his experiment upon dogs he had drawn the following conclusions:—

The elimination of oxide of carbon is very slow, and it lasts a long time. The air expired by an animal which has absorbed a large portion of the gas contains $\frac{1}{10000}$ th of this gas. Hence an important practical deduction: if an asphyxiated individual be left in an atmosphere containing $\frac{1}{10000}$ th of the oxide of carbon, elimination will not occur. This condition will determine a continuance of the symptoms. But, when in a room the proportion of oxide of carbon has risen to $\frac{1}{5000}$ th, it is very difficult to succeed, even with the best means of ventilation, in lowering the proportion of the oxide of carbon to $\frac{1}{10000}$ th. It is, therefore, necessary above all things to carry the asphyxiated into the open air.—*Le Progrès Médical*.

A FORMULA FOR RECENT ACNE ROSACEA.

M. E. Vidal has always obtained the best results from the following, for which he is indebted to his colleague, Dr. Hillairet:—

Distilled water, 150 grammes; rose water, 100 grammes; camphorated alcohol, 15 to 30 grammes; sulphur, 15 to 30 grammes. It is employed in this way: Morning and evening a sponge soaked in this solution is rubbed over the face, the sulphur is deposited on the skin, and when the patient wishes to go out he removes the sulphur, which remains adherent, by means of a very soft brush or a little cotton wool, and then washes with warm water. In some women, whose skin is very delicate, a slight pityriasis desquamation is sometimes produced, and Dr. Hillairet recommends inunction with the following pomade: Glycerole of starch, 30 grammes; oxide of zinc, 2 grammes. The sulphur lotion commonly succeeds in curing completely recent couperoses; if the congestion remain after the disappearance of the pustules, I then prescribe the application of compresses, saturated with this mixture: water, 250 grammes; hydrochlorate of ammonia, 10 grammes. The compresses are applied for 10 minutes, night and morning.—*Lyon Méd. La France Méd.*

ON THE MECHANISM OF ACCIDENTS OCCURRING DURING ANAESTHESIA.

Following are the conclusions upon this subject arrived at by M. Arloing, and presented

by M. Bonley to the *Académie des Sciences*. When death occurs at the commencement of the inhalation, it is due to reflex arrest of the heart and respiration consequent upon irritation of the nerves of the upper respiratory passages. Later, when the anaesthetic is diffused through the circulating stream, death occurs from arrest of the heart. If the anaesthesia be prolonged, or if the anaesthetic be given in massive doses, poisoning occurs, and death commences by arrest of respiration; arrest of the heart follows more or less closely.

All cases of death observed in practice may, upon mature reflection, be referred to one or other of these three mechanisms. Wherefore, the old precept, "Watch the heart when chloroform is used, the respiration when ether is employed," is not strictly correct for all the stages of anaesthesia. In the first phase the attention should be directed at the same time to both heart and respiration, as well with ether as with chloroform. In the second phase you should scrutinize the heart, and the vigilance should be doubled if chloroform be used. For it is at this period that we are liable to see, especially with this agent, what the surgeons term "Sideration of the patient." In the third stage the respiration should be carefully watched, and as the *dénoûment* of ether intoxication is more sudden than that of chloroform poisoning, the surgeon will do wisely, except in the presence of special indications, to prefer chloroform to ether whenever the operation to be performed will be or may be of long duration; he will thus have more time, before arrest of the heart, in which to combat the symptoms of intoxication.—*L'Union Médicale*.

THORACIC VIBRATIONS IN THE REGION OF PLEURITIC ADHESIONS.

At a recent meeting of the *Académie de Médecine*, à propos of a paper on encysted pleurisies, by M. Jaccoud, in which he affirmed the transmission of the thoracic vibrations at the points corresponding to pleuro-pulmonary adhesions, and of the contrary opinion maintained by M. Reynand. M. Guéneau de Mussy (senior) placed the matter in a very clear light. The absence or presence of thoracic vibrations

does not depend solely upon the effusion of fluid or upon adhesions which may limit it; many other factors hitherto neglected intervene in these phenomena. Thus all chests do not vibrate equally for all sounds: grave tones are necessary for amply developed chests, and acute sounds for those which are contracted. The former will preferentially throw into vibration the inferior portion of the thorax, the latter will be more perceptible to the hand upon the apex. There is a special tonality to which the maximum of vibrations of a given region of the chest corresponds. M. Guéneau de Mussy profited by the same occasion to restore to Williams the discovery attributed to Skoda, touching the exaggeration of sonority which the thorax presents above the level of certain effusions. According to him, pulmonary adhesions may sometimes augment the vibrations of the thorax during phonation; sometimes, on the contrary, and this occurs most commonly, they may abolish them. A full inspiration may also, by increasing the intra-thoracic tension, render a chest dull which had remained sonorous in spite of the presence of an effusion.

To sum up, thoracic vibrations perceived by the application of the hand upon the chest certainly possess an importance from a diagnostic point of view, but their interpretation varies with the individual and the degree of tension of the walls of the chest and lungs. Absolute conclusions cannot, therefore, be deduced therefrom.—*Le Praticien*.

ON THE HARD ŒDEMA OF THE LABIA MAJORA MINORAQUE SYMPTOMATIC OF SYPHILIS.

M. Oberlin has been fortunate in his choice of subject of his inaugural thesis. The work goes to confirm in all particulars the conclusions of a memoir of M. A. Martin upon the same subject, and which appeared in the *Annales de Gynécologie* of last December. We cannot do better than subjoin his conclusions:—

1. There is frequently observed in women affected with syphilis, during the primary and secondary periods of the morbid process, when the phenomena symptomatic of these two phases are developed upon the *labia majora minoraque*, a peculiar lesion of these organs,

consisting in an hypertrophy, having all the characteristics of hard œdema.

2. This hard œdema consists in a considerable augmentation in size of the *labia majora*, whose surface is pale mamillated, and intersected by numerous fissures. Palpation gives to the finger an elastic sensation and does not provoke pain.

3. This œdema extends in some cases to the *labia minora*.

4. This lesion presents the greatest analogy with that which has been described in man as syphilitic phimosis.

5. It consists in an hypertrophy with hypergenesis of the constituent elements of the derm and connective tissue.

6. It is often accompanied by a special form of very hard, rounded, warty looking, sometimes umbilicated papules.

7. Hard œdema of the *labia majora* is a syphilitic lesion; it is not rare, since it is met with at least five times in the hundred in women affected with primary or secondary syphilitic ulcerations located upon the external genitalia.

8. Very few authors have remarked this very characteristic lesion; it has almost invariably been confounded with lymphangitis.

9. The œdema of the *labia majora* persists for a very long time (ordinarily several months) after the cicatrization of the ulcerations which provoked it.

10. General antisymphilitic treatment, assiduously followed and energetically administered (by mercurial frictions especially) alone overcomes the lesion. Local treatment has but slight effect.—*Le Progrès Médical*.

Formularies.

DR. RICHARDSON'S STYPTIC COLLOID (*Hospital Gazette*).—

R Acidi tannici, ʒii;
Alcoholis absoluti, fʒss;
Ætheris, fʒiiss;
Collodion, q. s. ad fʒxij.—M.

WHOOPIING-COUGH POWDERS—(ARCHAMBAULT).

Pulverized sugar. . . 9 grains.
Musk. } each $\frac{3}{4}$ to 1 $\frac{1}{2}$ grains.
Oxide of zinc }

Mix. For one powder, to be given every two hours in the day to a child of three years affected with whooping-cough.

THE CANADIAN Journal of Medical Science,

A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending reports of the proceedings of their Associations to the corresponding editor.*

TORONTO, OCTOBER, 1879.

TO SUBSCRIBERS.

We hope to enclose to each subscriber his account next month. As the bills have all been sent out before, none need wait to receive another before remitting. We don't like this frequent dunning, but our debtors will remember that "our poverty and not our will consents."

CLINICAL TEACHING IN THE TORONTO GENERAL HOSPITAL.

As the season of lectures has commenced in our medical schools we would again draw attention to the very defective character of the clinical instruction given in the hospital. During the last three or four years very great improvements have been made in the old hospital building, and wings of very considerable size have been erected, which, for outside appearance and internal arrangements, will compare favourably with buildings of a similar nature in any part of the world. There has also been a very marked improvement in the care taken of patients, and the many comforts allowed them. So much is this the case that visitors are at once struck with the cleanliness and good order shown in all the departments. It is to be regretted, however, that a similar improvement has not taken place in the character of the clinical teaching afforded. Having a full knowledge of the facts, we have no hesitation in saying that, although of late years some attempts have been made to deliver clinics at a regular hour, the teaching is still very defective, and consequently the attendance of

students is irregular and unsatisfactory. Our object in the present article will be to point out some of the causes of these defects, and to suggest some remedies.

(1) A great cause of the deficiency is the enormous preponderance of what are called didactic lectures. It is quite impossible for a student to attend a hundred didactic lectures on each of the final branches within a six months session, do the requisite amount of reading, and have also sufficient time to give to clinical study. It is very questionable if such lectures are of any very great value to the students, without cases to illustrate the various subjects taught. The remedy for the evil would be to cut down the number of didactic and increase the number of clinical lectures. Sixty of the former might be given with forty of the latter. An objection might be urged here, that in this way the whole subject could not be gone over in one session. How then do they manage in foreign schools where a very much less number of systematic lectures are given? The lecturer could take up more fully the more important parts, and allow the student to read up the remainder from his text book. It is impossible, even in a hundred lectures, to go over the whole of either medicine or surgery minutely and fully.

(2) Another cause of the defect is the manner in which the clinics are given. The patients are admitted into the theatre indiscriminately, and very often both the lecturer and students are thoroughly tired listening to the stories of patients suffering from imaginary ailments, before a case of interest presents itself. The cases should be classified before the commencement of the lecture: those of little or no interest might be admitted down stairs, and the two or three interesting ones brought up to form the basis of a clinic. It would also be of advantage to allow four or six students to remain down with the lecturer, so that they might personally examine these patients.

(3) A third cause lies with the students themselves. A great number take little interest in the cases they see. They will eagerly crowd around to see a rare and difficult surgical operation which they, in all probability, will

never be called on to perform, and will turn their backs on a plain case of pneumonia, of which they will constantly meet examples in practice. This inattention might be easily remedied by insisting on practical examinations. The Medical Council has for years threatened to introduce this system, but has really never made an honest effort to do so.

It is also of very great importance that the students, resident in the hospital, should take a deep interest in the cases which come under their notice; that either they or the clinical clerks should keep accurate notes, so that the physician might be made acquainted with every new feature of disease in a certain patient, and thus more effectually instruct the class.

In visiting the wards some new arrangement should be made. It is impossible for fifty or eighty students to follow one physician from bed to bed, and reap any benefit from what they see and hear. They create a great amount of confusion and noise, which must be detrimental to the welfare of the patients. There are now twelve visiting physicians and surgeons on the staff, and if the students were divided in classes of ten for instance, so that each class should follow a certain physician, the bed-side teaching would be more effective, and the confusion would be avoided. At the beginning of each month the classes might be changed around, so that the students would be able to see the practice of the various physicians. There is at present an almost absolute want of appliances for clinical teaching, such as microscopes, instruments for urinary analysis, sphygmograph, &c. Now that the student's fee has been raised to twenty dollars for a perpetual ticket, the hospital authorities might afford to spend a little on these necessary appliances.

These are a few of the points which might be dwelt upon in regard to this important subject. As previously stated, we are under the firm conviction that at present the clinical teaching in the Toronto General Hospital is lamentably deficient; and that the trustees, the visiting staff, and the house surgeon should make it their business to set about a remedy without further delay. An institution so large as to be almost provincial in its character,

falls far short of its design, when satisfied with looking after the welfare of the patients, it allows students to go out into practice, who have never had an opportunity of obtaining a thorough and practical knowledge of their profession.

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**CANADA MEDICAL ASSOCIATION—
 WYETH AND BROS.' EXHIBIT.**

At the late meeting of the Canada Medical Association, Messes Wyeth Bros., the well-known pharmacists of Philadelphia, had on exhibition, through their agents, Perry Davis, Son & Lawrence, of Montreal, samples of their elegant pharmaceutical preparations, which are now so well known throughout Canada, and to which we had occasion to refer in our last issue.

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**CANADA MEDICAL AND SURGICAL JOURNAL,
 MONTREAL.**—We are informed that arrangements have been completed whereby this Journal will in future be edited by Drs. George Ross and W. A. Molson. It is now intended to bring out each number punctually on the 15th day of every month, instead of the 1st, as heretofore. We wish the new management every success.

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QUOTATIONS FROM THE TALMUD ON MEDICAL MATTERS.—Mr. Magnus, Sen., of Berlin, publishes in the *Deutsch. Archiv f. d. Geschichte d. Medicin* (1879, p. 240) the following passages from the Talmud:

At the head of all diseases am I, the Blood; at the head of all remedies am I, the Wine.

Eat hearty: You will feel its effects when walking.

A drop of cold water mornings (in the eye), and washing the hands and feet in the evening, are better than all eye-salves.

Before a distant physician may arrive, the eye may become blind.

Badly off is the town whose physician has the gout, and whose oculist only has one eye.

Honor the physician before you need his services.

A physician who makes gratuitous cures is of no account.

The door, which is closed to prayers for alms, opens for the physician.

Book Notices.

Emotional Prodigality. By C. FAYETTE TAYLOR, M.D. New York.

Observations on the Mechanical Treatment of Disease of the Hip-joint. By CHARLES FAYETTE TAYLOR, M.D.

Method for performing Post-mortem Examinations, North Carolina Board of Health, Raleigh, N. C.

Addendum to the Controversy on Chronic Spasmodic Stricture or Urethritism. By F. N. OTIS, M.D. New York.

Transactions of the Thirty-Fourth Annual Meeting of the Ohio State Medical Society, held at Dayton, June 3rd, 4th, and 5th, 1879.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland, 81st Annual Session, held at Baltimore, April, 1879.

Transactions of the Medical Society of the State of Tennessee at its 46th Annual Meeting, 1879, Nashville, Tenn.

History of the Discovery of Anesthesia. By J. MARION SIMS, M.D., M.A., LL.D. From *Virginia Medical Monthly*, May 1877. Richmond, 1877; New York, 1879.

A New Removable Paper Brace for the Treatment of Caries of the Spine, and of Lateral Curvature, by the insertion of a Rubber Band to exert continuous pressure over the Deformity. By AP MORGAN VANCE, M.D., Junior Assistant, Hospital for Ruptured and Crippled, New York.

A Manual of Midwifery, for Midwives and Students. By FARNCOURT BARNES, M.D., &c., &c. Philadelphia: Henry C. Lea. Toronto, Hart and Rawlinson, 1879.

This little book has been somewhat coldly received by some of the critics, but we rather like it. The style is clear and concise, and

much better adapted to the comprehension of the student during his first year than the more pretentious standard works.

The descriptions of the mechanism, the stages and management of labour, are the simplest and most clear we have seen, and we fancy many students will avail themselves of its pages during their first course. It is written professedly for midwives, and if they could be induced to master its details there would be a vast amount of suffering and injury saved to womankind. In regard to the treatment of complications, the author is hardly explicit enough; but he always advises the reader to send for qualified assistance in such cases, and, therefore, in a manual of this kind perhaps greater detail is not necessary.

We must, however, take exception to the statement that the child is not viable before the 250th day of gestation, as well as the assertion that in hourglass contraction the constriction is usually at the internal os, and that the plate taken from Tyler Smith shows the cavity of the cervix below. We must remember that the cervix does not develop into a cavity, as Tyler Smith taught; and therefore, after delivery of the child, it is impossible to have a cavity formed below the internal os uteri as large as that plate represents.

Again, in the treatment of thrush, we decidedly object to having the spots *rubbed* with anything. All applications should be made as gently as possible with a feather or camel's hair brush.

We are glad to see that the author has corrected the plates representing the head in the different obstetric positions, for those in Hodge, Tyler Smith, and Playfair have always been incorrectly numbered.

It is probable that this, like many other manuals, is but the prelude to a large work and if so, we hope the author will retain the simple and clear style of his maiden effort throughout the more complete and pretentious volume.

The book, as far as it goes, is well worth the attention of students, and will help to the understanding of those principles and precepts which they find so difficult. The work is got up in the publisher's usual beautiful style.

Manual of the Principles and Practice of Operative Surgery. By STEPHEN SMITH, A.M., M.D., Surgeon to Bellevue and St. Vincent Hospitals, New York. pp. 662. Illustrations, 733. Boston: Houghton, Osgood & Co. New York: 21 Astor Place. The Riverside Press, Cambridge, 1879.

Through the courtesy of Messrs. Houghton, Osgood & Co., we have received an advance copy of this work, which thoroughly fulfils the author's endeavour to "embody the teachings of recognized authorities on every subject, so far as they conform to what is believed to be the present standard of surgical opinion and practice." With the exception of the surgery of the organs of special sense, the subject of operative surgery is discussed in an exhaustive and masterly manner, and profusely illustrated; many of the illustrations being specially drawn for the work, others being derived from works on surgery, medical periodicals, and manufacturers of instruments. In these days "of making many books there is no end," but of the recent medical works published, we have met with none that so amply justifies its publication as this Manual, which is really a "*multum in parvo*" guide to all the operations a surgeon may be called upon to perform, and to the treatment of all surgical diseases and injuries. The character of the work necessarily renders any detailed review impossible, and we shall content ourselves with describing briefly the able manner in which the subject is dealt with by one of the best American surgeons of the day. Chapter I. treats of Principles, under the heads of (a) The Obligation, The Examination, The Preparation, The Hæmorrhage, The Anæsthesia, The Operation, The Emergencies, The Dressing, Applicances, Repair and Cicatrization, and is full of valuable instruction, concisely, but clearly and exhaustively given. Then follow chapters on the Osseous, Muscular, Circulatory, Nervous, and Tegumentary Systems; the Digestive, Respiratory, Urinary, and Generative (male and female) Organs, and the Surgery of the Extremities, the latter treating of Amputations, Deformities, and Compensative Appliances. A copious index of 27 pages helps to make the work complete in every sense of the term. It should find a place on the table of every practitioner, for he can gather from it all the aid that books can give him in the immediate treatment of surgical diseases and injuries. The copious illustrations, if sometimes lacking in elegance, make up for that in accuracy, and in no small degree contribute to the attractiveness and usefulness of the work.

Meetings of Medical Societies.

ANNUAL MEETING OF THE CANADA MEDICAL ASSOCIATION.

The Canada Medical Association held its Twelfth Annual meeting at London, in the Victoria Hall, on September 10th and 11th. A goodly number of members were present and evinced a warm interest throughout the proceedings. The list contained twenty-five papers which were to have been read, in addition to the reports of the various committees appointed last year. The great number of papers and reports and the length of some of them prevented many from being read, and curtailed the opportunities for discussion to which it is the object of these papers to give rise. The length of time at the disposal of the association is too limited; but was made the most of on this occasion.

The session opened promptly on the morning of the 10th. The President, Dr. J. D. Macdonald, of Hamilton, being in the chair. After a few remarks, in which the President alluded in a cordial manner to the presence of distinguished visitors from the United States, the reports of the various committees were presented.

Dr. Bucke, of London, then read a most able and exhaustive essay upon "Alcohol in Health and Disease." He went over the ground carefully and minutely, and his views not being accepted *in toto* by the Association, gave rise to considerable and animated discussion. A unanimous vote of thanks was accorded the reader for his most excellent paper.

The nominating committee was then appointed, with Dr. Bucke as chairman. The remainder of the morning session was taken up with routine business and finally adjourned until 2.30 p.m.

The afternoon session opened at 2.30. After the reading of the minutes, the President delivered his address, for which he had chosen the subject, "Sick Hospitals; to what extent are these structures required, and how are we to get them?" The paper was replete with useful hints, and showed a thorough appreciation of the wants of the profession in this respect and of the benefits that the public derive from hospitals.

Dr. Leaming, of New York, followed with a paper upon "Pleurpneumonia." The description of the morbid lesions of this disease was particularly good, and was drawn principally from *post mortems* on cattle killed for this disease, in New York. He advocated large doses of calomel in the treatment.

Dr. Goodwillie, of New York, then read a paper on "Hinderances to Respiration from disease of the Nose," exhibiting and explaining the uses of an instrument which he had devised for their treatment.

Dr. Burns, of Toronto, read a paper upon "Registration of the Conditions of Health;" and Dr. Workman, of Toronto, upon "Placenta Previa," which was, as all his writings are, careful, thorough, and scholarly.

The session was resumed in the evening at 8.30, by the reading of a paper by Dr. Grant, of Ottawa, upon "Dermoid Cysts of the Ovary." The subject was discussed from both a medical and surgical point of view.

Dr. Rosebrugh, of Hamilton, read a long paper on "Uterine Fibroids," which showed a close acquaintance with the authorities.

The meeting then adjourned.

On the morning of the 11th, after the reading of the minutes, Dr. Osler, of Montreal, gave a description of the anatomy of the brain, illustrating his remarks by specimens of the brain preserved by Giacomini's new process. The specimens were beautifully preserved retaining their form and colour, whilst being firm, hard, and smooth. The various convolutions were marked out, and Ferrier's centres traced carefully upon one specimen. Dr. Osler was most highly complimented upon his patient labour and his most interesting and instructive remarks.

Dr. Buller, of Montreal, read notes of two cases of iritis, in which he had injected pilocarpine hypodermically.

Dr. Holmes then read a paper upon the action of cold as antagonistic to the febrile state.

Papers were afterwards read by Dr. Playter, of Toronto, upon "Therapeutics and Materia Medica;" Dr. F. W. Campbell, Montreal, on "Duodenal Ulcer," and Dr. Hingston, Montreal, on "Lithotripsy." The Treasurer, Dr. Robillard,

presented his report, showing a balance in favour of the Association.

Dr. Botsford, of St. Johns, N.B., moved that Drs. Robillard and Oldright be a committee to bring before the notice of the Dominion Government the subject of weekly reports of weather and health.

The Report of the Nominating Committee was then adopted, which recommended that the next meeting be held in Ottawa, on the first Wednesday in September, 1880. Also the following officers and committees:—

President—Dr. Howard, Montreal.

Vice-Presidents—For Ont., Dr. Hill, sen., Ottawa; for Que., Dr. F. W. Campbell, Montreal; for N.S., Dr. Atherton; for N.B., Dr. Parker.

General Secretary—Dr. David, Montreal.

Treasurer—Dr. Robillard.

Local Secretaries—For Ont., Dr. Wright, of Ottawa; for Que., Dr. Ross, of Montreal; for N.B., Dr. Allison; for N.S., Dr. Wickwire.

Committee of Arrangements:—Drs. Sweatland, Grant, and Wright, of Ottawa; with power to add to their number.

Publication—Drs. Osler, Fenwick, and Campbell, of Montreal.

Medicine—Drs. Wright, Ottawa; Adam Wright, Toronto; and Harrison, of Selkirk.

Surgery—Drs. Roddick, Atherton, and Burritt.

Obstetrics—Drs. J. H. Burns, Gardiner, and Black.

Therapeutics—Drs. Daniel Clark, Medcalfe, and Stevenson.

Necrology—Drs. Edwards, Campbell, and Fulton.

Education—Drs. Hingston, Graham and Burgess.

Climatology—Drs. Oldright, Larocque, and Botsford.

Ethics—Drs. Macdonald, Hingston, Robillard, Parker, Grant, Botsford, Marsden, Bucke, Clark, and Osler.

The Association then adjourned for lunch, at the Asylum.

About one hundred persons sat down to a sumptuous lunch in the theatre of the asylum. After doing full justice to the bounteous repast, and numerous patriotic and other toasts had been proposed and replied to, and the asylum

pretty thoroughly inspected, the members of the Association returned to London.

The afternoon session was occupied by the report on Necrology, by Dr. Fulton, Toronto; papers on Post Partum Hæmorrhage, by Dr. Tye, of Thamesville; Dilatation of the Stomach treated with the stomach-pump, by Dr. Ross, Montreal; and Meningocele, by Dr. Roddick. Dr. Hanson, of Hyde Park, delivered an address upon the "Changes in the Treatment of Disease during the past thirty-four years." A committee composed of Drs. Mullin, Sloan, and Osler, was appointed to look into some financial questions. Finally, votes of thanks were passed and the meeting adjourned until Sept., 1880.

In the evening a magnificent dinner was offered to the members of the Association by the Medical Profession of London. This took place in the Tecumseh House, and was attended by a large number of guests, who enjoyed themselves thoroughly.

THE TORONTO MEDICAL SOCIETY.

The Toronto Medical Society held its regular fortnightly meeting in the Ladies' Parlour of the Mechanic's Institute, on Thursday evening last, the President, Dr. Workman, in the chair.

After the reading of the minutes, Dr. Alt presented an eye affected with purulent cyclitis, phlyctenular ulcer and cataract, which he had removed on account of sympathetic ophthalmia of its fellow.

Dr. Graham followed with the details of a case of exophthalmic goitre of fifteen years' duration; and Dr. Reeve narrated the history of a case of cataract, associated with diabetes, in which exposure to cold upon the Fair Ground, at our recent Industrial Exhibition, was promptly followed by symptoms of acetonaemia—or, as Prof. Saunders and Mr. Hamilton, of Edinburgh, will have it, pulmonary fat embolism—and a fatal termination ensued within thirty-six hours.

Dr. Adam H. Wright then read an excellent paper upon "Hypertrophy of the Prostate," presenting the various forms of catheter recommended in this affection. After some discussion, and the doctor's replication, routine business was transacted, and the Society adjourned to meet again on the 9th inst. The subject for discussion at the next meeting is "Cystitis," Dr. McPhedran being reader of the paper.

Miscellaneous.

CANADIANS IN ENGLAND.—Luke Teskey, M.B., has been admitted a member of the Royal College of Surgeons of England.

DEATH OF M. CHASSAIGNAC.—We regret to hear that M. Chassaignac, to whom surgery is indebted for the introduction of the drainage-tube into practice, died on August 26th. He had for some time retired from active life.

TREATMENT OF INGROWING TOE NAIL.—Dr. Andrews gives the following operation, as that of a chiropodist, named Willard:—"He never extracts the nail nor slices off the overlapping flesh, but cuts out a narrow ellipse of tissue near the nail and parallel to its border, claiming that the border itself, where it rests against the edge of the nail, has its special structure adapted to its location, and ought not to be sacrificed. The removal of the strip of flesh being accomplished, he brings the edges of the wound together with fine sutures, thus drawing the border away from the nail and effecting a cure."

ELEMENTARY MECHANICS ; ITS PLACE IN THE CURRICULUM.—At the meeting of the General Council of Medical Education and Registration of Great Britain, a motion was unanimously adopted, "That the subject of elementary mechanics,—of solid and fluid—meaning thereby mechanics, hydrostatics, pneumatics, and hydraulics, be no longer recommended by the Council as an optional subject of preliminary education, but be recommended as one of the subjects, "without a knowledge of which no candidate should be allowed to obtain a qualification entitling him to be registered, it being understood that the examination in this branch may be passed either as preliminary or as first professional."

CHANGE OF DIET.—A member of the sanitary police force came across a boy the other day who was wheeling home a load of oyster cans and bottles, and curious to know what use the lad could put them to he made a direct inquiry. "Going to throw them over into our back

yard," replied the boy. "I took two loads home yesterday."

"But what do you use 'em for?"

"It's a trick of the family," grinned the lad.

"How trick?"

"I'd just as lief tell," continued the boy, as he spit on his hands to resume his hold on the barrow. "We're going to have some relashuns come in from the country. We may not have much to eat, but if they see the cans and bottles and boxes they'll think we've had isters, champagne, figs and nuts till we've got tired of 'em and are living on bread and taters for a healthy change!" The officer scratched his ear like a man who had received a new idea.—*The Sanitarian*.

A PEN WORTH RECOMMENDING.—We have been favoured with samples of the celebrated Spencerian Double Elastic Steel Pens, and after trying them feel justified in highly commending them to our readers. They are made of the best steel, and by the most expert workmen in England, and have a national reputation for certain desirable qualities which no other pens seem to have attained in so great perfection, among which are uniform evenness of point, durability, flexibility, and quill action. It is thus quite natural that the Spencerian should be preferred and used by professional penmen, in business colleges, counting rooms, government offices, public schools, and largely throughout the country. Indeed, so popular have they become, that of the "Number One" alone, as many as eight millions are sold annually in the United States. The Spencerian Pens may be had, as a rule, from any dealer; but, when not thus obtainable, the agents, Messrs. Alexander Buntin & Co., 345 St. Paul Street, Montreal, will send for trial, samples of each of the twenty numbers on receipt of twenty cents.

THE ARRANGEMENT AND DISTRIBUTION OF THE MUSCULAR FIBRES OF THE RECTUM. By J. G. Garson, M.D. (London).—In this paper, Dr. Garson showed that the rectum and bladder are united together by the longitudinal muscular fibres of the gut. The distance that the bladder and rectum are adherent may be divided for purposes of description into two

parts, an upper and a lower. Of those, the upper is the longer. Here the two organs are united only by areolar tissue, and can be easily separated from one another; but at the lower part, the anterior longitudinal fibres of the gut, which are closer together on this than on other parts, as they pass downwards over the front of the rectum, are reflected (in the same way that the peritoneum is) from it to the bladder, and are distributed over the posterior surface of that viscus. The rectum and bladder are, therefore, firmly bound together, not only by areolar tissue, as is generally stated, in anatomical works, but also by muscular fibres. This arrangement of what Dr. Garson terms rectovesical fibres does not appear to have been previously described; at least, it is not mentioned in the principal works on the anatomy of the bladder and rectum.—*British Medical Journal*.

NARCOTISM FROM NUTMEG.—Mrs. N., aged thirty-eight, mother of four children, was confined on Sabbath morning, June 29th, 1879, at nine o'clock. The child was a girl, and the largest I have ever seen; weight fourteen and one-half pounds. Labour natural and easy. Had a light spasm after the last pain. The spasm was hysterical. On the 30th the "old women" persuaded her to take nutmeg tea. One and a half nutmegs were used in making the tea and she drank it during the day. About ten p.m. she began to get drowsy. By four o'clock the next morning she was in a profound stupor. At ten a.m. the narcotic effects of the nutmeg began to die out, and by four p.m. she had pretty well recovered. The symptoms were about the same as those produced by opium and the remedies were the same. I mention this case for the reason, that nutmegs are in such general use as a condiment, that we may lose sight of their dangerous narcotic tendencies. In twenty-one years' practice I have never seen such a case before, and if I had ever known that the nutmeg possessed such properties, it had completely escaped my memory, and for fear some of our numerous professional brethren may be in a like condition, I have deemed it proper to mention this case.—*St. Louis Clinical Record*.

J. B. Mattison, M.D., of Brooklyn, N. Y., in the *Quarterly Journal of Inebriety*, summarizes as follows in regard to treatment of opium inebriety: "Granted a case suitable for treatment, this method may be summarized as follows: Opiate reduced, at once, to one-half or two-thirds usual quantity. Subsequent gradual decrease and entire withdrawal in seven or eight days. Mercurial cathartic, first night, followed by daily laxative enemata, or Hunyadi water. Bromide of sodium, 60 grain doses, increased 30 grains daily, *ter in die*, in six or eight ounces of water, on empty stomach, continued 5 to 7 days. Restlessness following opium abandonment met by hot baths, 100° to 110°, ten to thirty minutes each, often as required. Bromide eliminated by diuretics—digitalis and nitre, and diaphoretics—hot and steam baths. Insomnia relieved by chloral, combined, if need be, with Indian hemp or hyoscyamus. Diet exclusively milk and lime water first three days of opium abstinence. Full diet resumed soon as possible. Debility removed by generous living, general faradization, strychnine, iron, quinine, etc., with out of door exercise and varied social enjoyment."—*American Practitioner*.

MORAL DIETETICS.—Dr. Bock, of Leipzig, writes as follows on the moral effect of different articles of food and drink:

"The nervousness and peevishness of our times are chiefly attributable to tea and coffee; the digestive organs of confirmed coffee-drinkers are in a state of chronic derangement, which reacts on the brain, producing fretful and lachrymose moods. Fine ladies addicted to strong coffee have a characteristic temper which I might describe as a mania for acting the persecuted saint. Chocolate is neutral in its psychic effects, and is really the most harmless of our fashionable drinks. The snappish, petulant humor of the Chinese can certainly be ascribed to their immoderate fondness for tea. Beer is brutalizing, wine impassions, whiskey infuriates, but eventually unmans. Alcoholic drinks, combined with a flesh and fat diet, totally subjugate the moral man, unless their influence be counteracted by violent exercise. But with sedentary habits, they produce those unhappy

flesh sponges which may be studied in metropolitan bachelor halls, but better yet, in wealthy convents. The soul that may still linger in a fat Austrian abbot is functional to his body only as salt is to pork—to prevent imminent putrefaction.

A PRACTICAL REFORMER.—An occasional protest is raised against the extravagance of funerals, but no one seems to inaugurate the reform which few will deny is desirable. Doctors are as much interested in this reform as any. People who consider the undertaker's bill a debt of honour, and who will scrape and save to pay it, are not at all distressed about the doctor's bill. Possibly if the relicts could be persuaded to lavish less wealth on the dust of the "dear departed" they might find it less difficult to settle for the medical attendance. A doctor recently died in England, who, doubtless, often felt, as we all have, the senselessness of the extravagance of modern funerals, and took a sensible and practical means of working a reform. He believed that this reform, like charity, should begin at home, and the following are the provisions of his will, touching his interment: "There is to be no wake whatever. My brothers and sisters, with their children, are to be the only persons admitted while my body is laid out. No clergyman is to be invited to my funeral: as they do not attend the burial of the poor, they shall not attend mine. No crape, gloves, cypruses, hat bands, or such emblems of mourning, to be made use of at my funeral. The cost of my coffin shall not exceed £1. The money thus saved, amounting to over £60, shall be distributed among the poor of the village of ———, where I have lived for the last thirty-three years."—*Mich. Med. News.*

PERSISTENCE OF THE CANAL OF MULLER IN A BOY AGED SIX.—In the March and April number of the *Journal de l'Anatomie et de la Physiologie*, M. Rémy describes the *post mortem* appearances seen in the genito-urinary apparatus of a child who died in the Hôpital des Enfants, Paris, of cystitis and suppurating kidneys, the result of chronic retention of urine. In front of the right ureter, another canal was found: it

began as a *cul-de-sac* among a mass of little cysts close to the suprarenal capsule, and passed downwards under the fundus of the bladder, opening into the utricle of the prostate by an aperture which would admit a large probe. Passing between the muscular and mucous coats of the bladder for some distance before reaching the utricle, it raised the mucous membrane close to the neck of the bladder to such an extent as clearly to have been the cause of fatal retention of urine. The urethra was perfectly free from stricture. This abnormal canal was evidently Müller's duct, and the cysts at its upper end represented the remnants of the Wolffian body. As the duct opened into the utricle, the homology of that depression to the female uterus is practically confirmed by this case. But Waldeyer's theory, that the hydatid of Morgagni represents a remnant of Müller's duct, is shaken by the fact that a well-formed hydatid existed on the right testicle in this instance where the duct was so complete. The presence, too, of an "organ of Giralde's" over the right epididymis, although very distinct remnants of the Wolffian body were found far from the testicle, at the upper end of the duct, tends to disprove Giralde's opinion that the little structure which bears his name consists of the remnants of the Wolffian body. The malformation in M. Rémy's case was perfectly unilateral.

THE EFFECT OF SMOKING UPON THE TEETH.—At a recent meeting of the Odontological Society of Great Britain, Mr. Hepburn read a paper on this subject; and the results of his investigations on the subject are contrary to what is, we believe, the popular notion. He considers that the direct action of nicotine upon the teeth is decidedly beneficial. The alkalinity of the smoke must necessarily neutralise any acid secretion which may be present in the oral cavity, and the antiseptic property of the nicotine tends to arrest putrefactive changes in carious cavities. In addition, he is inclined to believe that the dark deposit on the teeth of some habitual smokers is largely composed of the carbon with which tobacco-smoke is impregnated. It is this carbon which is deposited upon the back part of the throat and lining

membrane of the bronchial tubes; and with whatever disastrous effect it may act in these situations, he thinks we are justified, from what we know of its antiseptic properties, in concluding that its action upon the teeth must be beneficial. Moreover, this deposit takes place exactly in those positions where caries is most likely to arise, and on those surfaces of the teeth which escape the ordinary cleansing action of the brush. It is found interstitially, in all minute depressions, and filling the fissures on the coronal surfaces. It may be removed with scaling instruments from the surface of the enamel, but where it is deposited on dentine, this structure becomes impregnated and stained. Indeed, it is only where the enamel is faulty, and there is access to the dentine, that any true discoloration of the tooth takes place; but it is remarkable, he says, how the stain will penetrate through even minute cracks, provided the necessary attention to cleanliness be not exercised. The staining power of tobacco-oil may be seen when a deposit has taken place on the porous surface of tartar collected on the posterior surface of the inferior incisors. In this situation a shiny ebony appearance is occasionally produced. That tobacco is capable of allaying, to some extent, the pain of toothache is, he thinks, true; its effect being due, not only to its narcotising power, but also to its direct action upon the exposed nerve; and he is inclined to attribute the fact of the comparatively rare occurrence of toothache amongst sailors, in great measure, to their habit of chewing. He has been struck, in the case of one or two confirmed smokers who have come under his notice, by the apparent tendency which exists towards the gradual production of complete necrosis of carious teeth, and the various stages of death of the pulp, and death of the periosteum taking place without pain or discomfort to the patient. This condition may, of course, be brought about by a variety of influences; but in these special cases he is inclined to think that the presence of nicotine in the mouth has acted powerfully. The experience of other speakers in the subsequent discussion appeared to corroborate that of Mr. Hepburn, except that Mr. Oakley Coles thought the frequent changes of temperature probably injurious and tending to produce cracking of the enamel, and Mr. Arthur Underwood thought that smoking to the extent of injury to digestion tended to cause recession of the gums and otherwise to injure the nutrition of the teeth.

PUT MONEY IN THY PURSE.—A favourite theme with the medical-commencement orator is that ours is a profession and not a trade; the object of a trade being to make money and of a profession to do good to mankind. If it be meant by this that one is not liable to make money by the practice of physic, it is all very well; but if it be meant that one does not and ought not to try his best to do so, it is balderdash.

When any one enters upon the study of medicine he has precisely the same object in view which has the mechanic's apprentice or merchant's clerk. He means that his work as as soon as possible shall gain him a livelihood; he hopes for independence thereafter, and until he is chilled by disappointment has occasional visions of fortune farther on.

It is the sheerest nonsense to tell young men, and often old ones, too, who have raked and scraped their means together, and perhaps mortgaged their futures, to undergo the hardships of the benches and the perils of a student's boarding-house, that they have done so to fit themselves for a purely missionary work. They know that it is not so, and it is highly honourable that it is not so. "He that does not provide for his own household is worse than a heathen," were the words of one who also declared that "the greatest of these is charity."

The words of St. Paul are nowhere more applicable than to the profession of medicine. He knew full well that without money half the usefulness of the doctor is gone. He who is ever on the alert with the gifts of his services—or, what is a more common error, is careless in demanding proper recognition for his work—sins trebly—against himself, against his profession, and especially against those whom he thinks he serves. It may be his own affair when the doctor wrongs himself—albeit that besides money he loses, too, in respect—and if his wife's gown be faded, and if his children be out at elbows, it is her back and their arms and his eyes that are most offended; but he who enters the profession of medicine has duties to perform to the guild he has chosen.

Shall he always have money for his work? Shall he demand the full fees of the schedule irrespective of the condition of his patient? By no means. Such a declaration would be as silly as it would be inhumane. While all the giving of this world is not committed to the doctor, he has—especially if he be young—a special heritage in the poor, without whom clinics would stop and practice be a matter for graybeards only. But this is his opportunity, and he performs but his duty to himself when he embraces it. And again, while all the courtesies of the world are not committed to the doctor, he has his share to perform, and

should do it gladly, rendering his services cheerfully and delicately to those who must not pay; and so, too, shall he bear his part as a citizen, says the Code, and lend his services to the public good in proper matters for his concern. These are the doctor's duties. It were cant and coarseness to call them charities. For these, too, has he ample opportunities—more than most men—in his daily life, among rich and poor and high and low, not in doing and giving only, but in sympathizing with distress, in bearing with human weaknesses, in conquering himself.

The doctor has no right to lower his profession in the eyes of the world, and so injure its usefulness. He who is careful in his business affairs, and charges those who are able to pay and should pay the full measure for his services, and sees to it that they are paid for not by suits, which are abominations, but by educating his people to pay, may gain the name of closeness, but really he is doing far more to raise his profession in the world's respect than the slipshod fellow who lets his bills go by from laziness, from lack of method, or from fear of giving offence. Not good-hearted, but rather chicken-hearted is he. We cannot alter the laws which make money or labour the unit of values. See how vain it is when the poor wretch for whom you have done your best saves from his miserable earnings a fee to pay not you, but another, whose skill must be better, for it costs to get it. We cannot change human nature, for witness the seemingly astonishing abuse and detraction which is given in return for unpaid services by way of asserting independence, and see how low is our profession held by public officers, when they see how the unpaid positions of doctors in the public service are eagerly sought for by members of the profession. "What do I care for doctors," said an astute ruler, "when I can buy them for a dollar a head?" A dear price, we are sad to think, it would be to pay for some.

And if the doctor—not through carelessness or ignoble fear of offence, but instigated by higher motives of supposed charity—do not demand his dues, grossly is he mistaken in the amount of good he does. We will not stop to consider the harm that is done by indiscriminate free medicine in destroying the independence—pauperizing the souls—of those who accept it; that is a well-worn theme; but point we for a moment to the valuelessness of free medicine. Whatever the amount of skill that is shown, no matter what care is given, it is a rule that free medicine loses in its effect. If there be some who in the nature of things do not pay for our services, it is their misfortune. The poor do not recover like the rich, and one reason is that among the comforts they are

denied is that of paying the doctor. Our most brilliant successes are certainly not among those who by courtesy are exempt from our fees; nay, it is even a misfortune, so far as health is concerned, for this patient to be joined to us by family ties, and thus be forced to escape our bills. Twenty years did the obstinate Fatima withstand the faith of her husband, Mahomet, though millions who pay for his ministrations found comfort in his trust.

What, then, is the end of this? Plainly that we shall not make a charity of our business or business of our charity, no less for the good of our patients than of our pockets. Let us not deprive them of a single chance for their welfare when we can help it, and keep steadily in view that not by drug alone, but by due care is health regained.

The most important therapeutical law which has been enunciated since quinine came in was made by Mr. Tuke, when he declared that the imagination and the unseen forces "should be yoked to the car of Phœbus Apollo," and made to do their part in hauling that life-machine out of the ruts in which it may have fallen. As great, too, is the force of money in view of the prospect of pay. It quickens the faith in him that gives it, unlocks stores of wisdom in him that receives. Would that these words could reach a very important party in our action. To him whom we can address, however, do we say it—put money in thy purse when you can, my brother, that the world may respect us and that our ministrations may not fail.—*Louisville News.*

APPOINTMENTS.

B. L. Bradley, of the village of West Flatboro', Esq., M.D., to be an Associate Coroner in and for the County of Wentworth.

Dr. John Harley has been appointed physician to St. Thomas Hospital, in the room of the late Dr. Murchison.

Charles A. Jones, of the village of Mount Forest, Esq., M.D., to be an Associate Coroner in and for the County of Wellington.

Births, Marriages, and Deaths.

BIRTHS.

At Penetanguishene, on September 17th, the wife of Dr. P. H. Spohn, of a son.

MARRIAGES.

At Bloomfield, on July 30th, A. C. Bowerman, M.B., to Ida E. Bedell.

DEATHS.

At Clarksburg, on Sept. 17th, Carrie A., wife of Dr. R. H. Hunt.

At Toronto, on Sept. 17th, Dr. Blume, late of New York city, aged 42 years.