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Original Communications.

APPENDICITIS.*

BY D. BRYANT, M.D., NEW YORK.

Whatever poor excuse I might offer as an apology for the infliction to be caused by the presentation of this paper, becomes a good reason when sustained by the fact that I have been requested to do so by our mutual and valued friend, Dr. Vandervoer. Dr. Vandervoer even suggested the title, and no doubt based his desire therefor on the fact that through my interest in the subject under consideration, something had been learned of importance as to the value of the comparative relationship of the vermiform appendix to its contiguous tissues, regarding appendicitis. Dr. Vandervoer believes that much light can be shed on the subject of appendicitis by the study of the modifications in its clinical history as influenced by the physical characteristics of the organ. The further fact that I concur with him in this regard is an additional reason for my presence here at this time.

At all events, the anatomical peculiarities of the appendix that effect directly the symptomatology of this defect—appendicitis, relate especially to the location, direction and extent of the appendix. The local symptoms are the ones chiefly modified by the preceding characteristics of the organ. The emphatic symptoms belonging to this category may be briefly stated as pain, tenderness, tension and tumor.

The situation and character of the pain, together with its reflex manifestations, comprise its important elements as modified by the individuality of the diseased appendix causing it. If the pain be dull and throbbing, and be influenced but little, if any, by respiratory movements, the involvement of connective, rather than serous, tissue, is indi-

cated. Later in the case, however, the supervention of serous painful phenomenon may be slowly or quickly announced. Appendicitis with primary fibrous tissue involvement is necessarily rare, as then the appendix is extra-peritoneal, or, is completely environed by inflammatory adhesions, the result of repeated attacks. In but three instances of 144 autopsies made for other than appendicular trouble, was the appendix found outside of the peritoneal cavity. In one of these it was upward behind the cæcum and colon; in another, behind and near to the inner border of the colon, extending even to the liver; and in the third it was behind the colon near to the outer border. It is in accordance with the well-known law, that the character of pain is modified by the kind of tissue involved, to assume that had either of these appendices been diseased, that the primary pain would have been of the connective tissue type, and continued so until peritoneal involvement had ensued, either by extension of the inflammatory process or of abscess rupture. It was my good fortune but a few years ago to meet with a well-pronounced case of this kind in Bellevue Hospital. In this instance, a dull, throbbing pain had been present for some time, beneath the ascending colon, along with tenderness and induration there. Suddenly the acute agonizing pain indicative of peritoneal involvement occurred, quickly followed by peritonitis and rapid death. At the time of the consultation, I ventured to predict, (1) the presence of a diseased appendix behind the cæcum and colon; (2) extensive connective tissue inflammation and abscess; (3) rupture of abscess into the peritoneal cavity. The results of the autopsy justified each prediction. In many cases of recurrent appendicitis the familiar pain of acute attacks is not present at the outset, and may not appear at all; and, too, respiratory movements cause but little, if any, additional infliction. I saw such a case as this but a few days ago while recovering from a fourth attack, with intervals of one year each.

It is, of course, superfluous to say that primary intra-peritoneal appendicitis causes acute pain, for this is the typical manifestation of the disease. It is proper to add, however, that the mobility and length of the appendix have much to do with the severity and extent of the pain, and also with the rapidity of the diffusion of the poisonous pro-

*Read before the N. Y. State Med. Asso., Feb., 1894.

ducts of the disease. All are aware that the appendices of some are comparatively "free" in the peritoneal cavity, their movements between the fields of the contiguous intestines being limited only by their mesenteries or their attachment to the cæcum. The free extremities of such as these are observed often extending upward from between the intestinal loops, and at this time can be aptly compared to the erect position of the deadly cobra when prepared to strike!

Let us now glance for a moment at the records attesting the freedom of movement of intra-peritoneal appendices. In 66 examinations, 40 per cent. of them were "free," in that one-half of the entire length was surrounded by peritoneum. The remaining 40 had mesenteries varying from three-fourths to above an inch in length.

Surely, gentlemen, the length and the freedom of movement of a diseased intra-peritoneal appendix exercises an important influence on the intensity and area of the pain and the rapidity of the diffusion of the disease producing elements. Dr. Reginald Fitz, in his oft-quoted and classical article published in the *American Journal of Medical Science*, October, 1886, says, "Sudden severe abdominal pain is the most constant, first, decided symptom of perforating inflammation of the appendix." As a proof of the fact he shows that this manifestation happened in 216 of 257 cases, or 84 per cent. of the number.

If we now turn our attention to the per cent. of "free" appendices, and those with mesenteries above an inch in length, we find their sum to be 84 per cent. of the entire number also. Certainly this similarity of percentages is a strange coincidence at the least, and leads one to repeat the remark, "There are more things in heaven and earth, Horatio, than are dreamt of in your philosophy." While it is doubtless true that the situation of pain is regulated to some extent by the location and direction of a diseased appendix, still neither time nor utility will permit me to indulge in hair-splitting distinctions in this regard, based on whether the appendix extends outward, downward, inward, etc., as this feature alone possesses no practical importance, except when the appendix extends beyond the usual limit.

It may not be amiss to add in this connection that the appendix runs inward in about 25 per cent.; that it is curled behind the cæcum in about

20 per cent., and extends into the pelvis in 14 per cent. of all cases. The average length (*post mortem*) of the appendix in the male is $3\frac{1}{2}$, and in the female $3\frac{1}{10}$ inches, as deduced from 144 examinations. The importance of the frequency (14 per cent.) of intra-pelvic extension should not be considered lightly. Nor can the differences in the lengths of the organ, as between the sexes, be deemed insignificant, when it is noted that the half inch difference between them causes the appendix of the male to enter the pelvis twice as often as it does in the female sex. The clinical importance of intra-pelvic extension of the appendix cannot be gainsaid: In a diseased appendix there located, the pain may be nearer the hypogastrium, and, too, it may involve the pelvic peritoneum and modify the action of the pelvic viscera during functional activity. And especially are these facts true if the extremity of the appendix be the portion involved by gangrene or perforation.

Thus far only direct pain has been considered, of both the acute and dull types. Reflex pains, while less important than the direct, are, nevertheless, of great diagnostic significance. Frequently during the course of an attack, and especially at the outset, referred pain may be present in almost any part of the abdomen. And, too, it is observed not infrequently in the testicle, perineum, rectum, thigh, lumbar region, etc. In fact, referred or reflex pains may occur at the seat of the distribution of any spinal nerve directly involved by the disease. Fitz has shown that in 213 cases of appendicitis pain was present in the right iliac fossa in 48 per cent.; in the abdomen in 36; in the hypogastrium in 5; in the umbilical region in 4; in the epigastrium in 2; and one per cent. each in the stomach, hepatic region, left iliac fossa and right hip and groin. I, myself, treated a case in June 23, 1886, in which the pain was referred to the umbilical region only. That this was a genuine case cannot be gainsaid, since the appendix was found to be perforated and was removed. The anatomical reason for the occurrence of these reflex pains can be explained by the well-known influence exercised by the abdominal sympathetic ganglion on the contents of the belly. A misplaced appendix or a wandering cæcum will account for an unusual pain site in a few instances. Without amplifica-

tion, it is sufficient to say now that pain in the right testicle, with or without its retraction, indicates the direct involvement of the genito-crural nerve. The same may be said also of the ilio-inguinal, anterior crural, etc., when pain is referred to their respective distributions, in connection with recognized or suspected appendicitis.

Tenderness.—This, the second of the inherent manifestations of appendicitis, may be either local or general, superficial or deep, keen or dull, depending on the extent, location and character of the inflammation and the variety of the tissue involved by it. If the extra-peritoneal connective tissue be first involved, as when the appendix is located behind the colon, or behind a cæcum not surrounded by peritoneum, or outside the peritoneum elsewhere, and, perhaps, between the layers of the broad mesentery of the appendix, the tenderness is local, deep-seated, and dull at the outset. That such cases as these are rare is obvious, on account of the great infrequency of appendices there placed. Quickly, however, the dull tenderness is supplemented and obscured by the acute variety, due to the rapid extension of inflammation to the contiguous peritoneum. The rapidity of the supervention of the acute pain is in direct proportion to the gravity of the lesion and the amount of the connective tissue involved by it. Dull tenderness of much duration is indicative, therefore, of a post-colon position of the appendix, and especially is this true in the absence of a meso-colon, which, according to Treves, happened in 52 per cent. of the subjects examined by him. Acute tenderness is, of course, strong proof of the involvement of the peritoneum, and its location may be accepted as indicating the site of the initial lesion, when it is circumscribed and marks the outset of the attack. If this fact be true, then, indeed, no definite point of tenderness can be established that may be regarded as diagnostic of this disease. The varying directions of the appendix already cited; the differences in its length, and in the situation in it of the point of greatest disease; together with the fickleness of the location of the cæcum from which it arises, all conspire to make the establishment of such a point impossible, and a reliance on it impracticable and misleading. Of general tenderness I will say but little, since it cannot be regarded as indicative of a circumscribed process, and is, therefore, not

to be considered as of much practical bearing on the arrangement of the appendix. It is proper, I think, to say that in those cases of appendicitis observed by me in which the diseased appendix was "free," the area of tenderness was far greater than in those not so freely movable.

Tension.—This expression refers mainly to tension of the abdominal walls; a tension tint may be limited to the side of the attack or be more or less general, according to the extent of the inflammation associated with it. The presence of this tension phenomena is of beneficent significance, and should incite the profoundest respect of the most sceptical minds. The motor nerve fibres that animate the abdominal muscles are from the lower intercostal, and are intimately connected with the sympathetic, supplying the abdominal viscera, through the lower thoracic ganglia from which the splanchnic nerves are derived. As a result of this arrangement, in acute peritonitis, the muscles of the abdomen become quickly and finally contracted, and thus shield the underlying viscera from external force, and keep them as quiet as it is possible to do by physical means alone. Tension of the right rectus abdominus in appendicitis is an early and important symptom, and indicates the presence of limited peritonitis, and fulfils the conservative purposes already stated. And for these reasons the left rectus goes on guard too, when its subjacent viscera are similarly involved. Muscular tension in this disease is not limited entirely to the abdominal walls, since the psoas and iliacus muscles also, from nervous involvement or direct implication, contract, causing flexion of the thigh. The bladder and rectum become fretful often, especially if the diseased appendix extends into the pelvis or be attached to the peritoneum at its brim. The cremaster muscle exercises its prerogative on the testicle, if the genito-crural nerve be implicated.

Tumor.—This symptom is of dual importance on account of its diagnostic and therapeutic significance. The former attribute alone concerns the tenor of this paper. That the situation and extent of the diseased appendix has much to do with the location and the determination of the presence of tumor cannot be denied. Generally speaking, the location of the tumor indicates the situation of the lesion, and it is especially significant, if the tumor be small, firm, deep seated and

fixed in its position. If, on the other hand, it be large, not firm, superficial and movable, its bearing on the site of the initial disease is of a general character only. When present, according to Fitz, tumor is detected by palpitation from the first to the eighth day of the attack inclusive. In 24 cases, it appeared in one on the first day; three on the second; four on the third; two on the fourth; four on the fifth; five on the sixth; four on the seventh; and in one on the eighth day.

The third, fifth and sixth days are noticed to be the most prolific ones. Tumor may be present early and yet be not detected till later in the disease, owing to its obscure position. As, when associated with a diseased appendix that is located behind the cæcum (22 per cent.); when placed behind the colon (2 per cent.); when extended into the pelvis of the intra-pelvic portion to the diseased part (14 per cent.); with a tympanic cæcum, and with general tympanitis irrespective of its location. In the intra-pelvic cases tumor may be detected often there and not elsewhere, by rectal or vaginal examination. Still, in these cases tumor may escape the vigilance of the closest scrutiny. Owing to time limit I have dwelt only on the leading cardinal symptoms, leaving consideration of the rarer and more curious manifestations for another time. In closing, permit me to submit the following conclusions for your consideration:

(1) That the location, direction and extent of the appendix have an important bearing on the clinical history of appendicitis.

(2) That the well recognized variations of the appendix in length, direction and location, and the varying site of the cæcum and of the seat of the disease of the appendix, make the establishment of a definitely seated diagnostic point of tenderness unwise and misleading.

NOTES ON A CASE OF BILIARY CALCULI.

BY SURGEON-MAJOR G. T. ORTON, WINNIPEG, MAN.

Feb. 10th, 1894.—Was called in consultation with Dr. S—— to see Mr. H——, residing some 80 miles from the city, whom I found much emaciated and extremely jaundiced. Pulse normal, 70; temperature, 97½; tongue only slightly brown, coated at back part; bowels occasionally loose, at

other times costive, motions clay-colored and devoid of bile, complained of dull almost constant pain, referred to pit of stomach, with occasional paroxysms more severe, causing him to double himself up to get relief and at times a sharp pain shooting up the spinal cord from the usual seat of uneasiness, which made him feel very sick and faint, latterly had required one or two pills of ¼ grain morphia to procure ease and rest. Appetite somewhat impaired, but considering his appearance fairly good, and digestion not bad; urine loaded with bile.

History of Case.—Had suffered dull pain and uneasiness, always referred to the stomach, for over 12 months. Had been treated for dyspepsia and gastrodynia until about a fortnight before I was called in, when he was somewhat suddenly seized with great pain and uneasiness over kidneys, and burning soreness in voiding urine, which became very high-colored. He then consulted his medical adviser, who placed him under appropriate treatment for suppression of bile and consequent renal and cystic irritation. Not proving amenable to treatment, Dr. S. desired a consultation, fearing grave results, and uncertain as to true diagnosis of the case. From his knowledge of the case, and its history, he very reasonably suspected malignant disease either of pyloric end of the stomach extending to the duodenum, and involving orifice of the ductus communis cholidicus, or of the liver itself, extending to gall bladder, with cystic and hepatic duct also affected.

Upon palpation we both felt two nodules, one larger than the other, at lower margin of liver, and also detected considerable enlargement of that organ. I was inclined to agree with Dr. S., that the indications were highly in favor of his view, that it was scirrhus or other malignant disease of the liver, and the more so from the sharp lacerating pains shooting to spinal column. However, I thought it just possible that it might be chronic hepatitis, with some cirrhosis in neighborhood of gall bladder and the hepatic and cystic duct, which had become involved and occluded from catarrhal inflammation, or possibly, notwithstanding the absence of the usual attacks of severe colic, it might be impacted gall stones. We decided to try and reduce any hepatitis and procure absorption of any effused lymph by appropriate external and internal means. Being far from

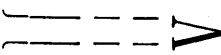
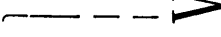
satisfied as to our correct diagnosis, and feeling much interest in the case, I desired to be kept informed of its progress by the doctor, and with his consent, also asked his wife to write me occasionally how he was doing.

From time to time the report was, no improvement, and no secretion of bile in the stools, was gradually getting weaker. From the reports as well as partly in consequence of a description given me by my nephew, Dr. R. H. Orten, of autopsies made upon two similarly obscure cases which had resulted in death, and proved in both cases to have been impacted gall stones, I became strongly convinced that poor Mr. H. also suffered from impacted biliary calculi, and wrote Dr. S. my opinion, and that whether or no, I thought an exploratory incision should be made, which, in case of it proving malignant, could do no harm under proper antiseptic conditions, and if calculi were found after removing those found in gall bladder, or what could be got at in ducts, an anastomosis could be made between gall bladder and duodeum with Murphy's button, and a new channel formed for the secretion of bile, if the common duct was occluded. This was finally consented to both by Dr. S., the patient and the family, and after what proved to have been too long delay, poor Mr. H. was sent up to Winnipeg to be operated upon by me, if upon again seeing and examining him, I deemed it advisable.

Upon his arrival I was greatly shocked at the sad change in his appearance; his emaciated condition, pained expression of countenance, increased jaundice which had become of a deep olive green hue, gave him altogether a very ghastly appearance. Upon careful examination I became confirmed in my opinion that it was impacted biliary calculi.

I invited Drs. Howden, Macdonnell and R. H. Orten to examine him with me, and we all agreed, as did subsequently Dr. Grain, who afterwards saw him alone. I at once removed him to a private ward in the new and elegantly equipped St. Boniface Hospital, and notwithstanding that at his advanced age, being in his seventy-first year, and in his feeble and complicated condition, for he had suffered for years with chronic bronchitis and catarrh, and that operative interference was comparatively hopeless, I decided to give him that only chance of life, and was the more encouraged

so to do by the longevity of his family history, his really excellent pulse under all the circumstances, his apparently perfectly sound heart and his almost normal temperature. Latterly he had almost lived upon porridge and milk, and his tongue was wonderfully clean.

Operation April 4th, 1894, aided at different points by above-named medical gentlemen and in presence of other well-known Winnipeg medical men. Chloroform administered after hypodermic of $\frac{1}{2}$ gr. strychn. nit. and two table-spoonsful of brandy by the mouth. An incision made three and one-half inches from point of ninth rib down an inch to right of, and parallel with, the border of rectus muscle into the abdominal cavity, which at once brought into view the lower border of liver and gall-bladder, both much congested; a large calculus was readily distinguished in gall-bladder. The duodenum was then brought up from behind the lesser omentum and the appropriate suture  introduced, but no incision,  fortunately, made for insertion of male portion of button, as upon introducing a similar suture in gall-bladder pus exuded freely, whereupon, after packing well with gauze to prevent extravasation of pus into general abdominal cavity, I made an incision into gall-bladder, and after evacuation of pus, extracted, by means of a bullet forceps, a calculus the size of a very large nutmeg after first breaking off a portion, and also a number of smaller calculi. This large calculus appeared to be firmly impacted into the mouth of the cystic duct, and beyond it the duct seemed to be almost impervious for a distance, the gall-bladder was greatly thickened and its walls utterly unfitted for the application of the button, so I decided to stitch the opening to the peritoneum and skin, to thus endeavor to secure an external fistula for the bile to escape, and as the calculi I could easily feel in the cystic duct, and, as I thought, also in common duct, could not be safely extracted, I thought we might eventually dissolve and extract through this external fistula. The peritoneum was brought together, as well as the skin, by common interrupted sutures, and the gall-bladder filled with gauze to act as a drainage.

The patient recovered well from the chloroform, and, though terribly troubled with cough, and the expectoration of what appeared to be purulent

phlegm, took nourishment fairly well. Neither temperature or pulse evinced any marked rise. On the fourth day after the operation, as little bile was exuded, I endeavored to make an impression on the calculi in the cystic duct, which could be easily felt, with a probe, and commenced flushing with strong pressure, warm, sterilized chloroform water, and morning of the seventh day I used Durand's solution, three of ether and two of turpentine, to try and dissolve the calculi, also adding some soda carb. to the warm water flushing. While I was thus engaged, the patient was seized with a sudden violent fit of coughing, and raised himself up in bed, when suddenly he exclaimed, "Something has given way," and, to my horror, upon examination I found the lowest stitch in the wound had loosened, and a small piece of omentum protruded, which I immediately returned and kept in place with warm sterilized gauze and towels until I could get assistance. Assisted by Drs. McDiarmid and Todd, with chloroform carefully administered by Dr. Hutton subsequent to another hypodermic of strychn. nit., I again opened up the whole wound with the idea of making another attempt to extract the calculi impacted in cystic duct, at least, but I was only able to gouge out portions, and pass eventually a probe, as I thought, into the ductus communicus cholochicus. As the patient was very feeble, I desisted, thinking the same efforts could be nearly as well made from without. I united more closely from below up the peritoneum with a continuous suture, and closed up the outside wound as before.

Though the patient recovered from the chloroform, the difficulty in breathing and bronchial complication became much worse. Little or no nourishment could be taken or retained, and, though much more bile exuded externally, he gradually sank and passed easily away thirty hours after the second operation, or eight days and six hours after the completion of the first operation.

Autopsy in presence of Drs. Howden, Higginson, Macdonnel and Todd. No traces of peritonitis extending beyond the actual seat of operation. The liver, though turgid and apparently congested, was otherwise fairly normal in appearance, except in the neighborhood of the gall-bladder and cystic duct. The gall-bladder was adherent to the liver, and its walls thickened to an inch with fibrous exudation, and this exudation of fibrous tissue

seemed to extend therefrom, forming a hard nodule to right of gall-bladder at lower margin of liver, which, when cut into, had much the appearance of scirrhus, but subsequent microscopic examination proved it to be only fibrous tissue. The pocket in which the large gall-stone was imbedded was enormously thickened, especially to its liver side, as was also the walls of the cystic duct, in which was found three other calculi, from the size of a large bean to a pea, each in its bed or pocket, and one imbedded in the opening of cystic duct at its junction with hepatic, which effectually closed the latter so that little or no bile could escape either into common duct or gall-bladder.

Another smaller calculus was found in the common duct about the size of an apple pippin, about midway to the duodenum. The walls of both hepatic duct and common duct were found quite healthy. Could anything further possibly have been done with a greater chance of saving life? Well, I think if he had been a younger man, and free from other complications, that possibly by removing the calculi from the cystic duct, and, indeed, even the duct itself, with the gall-bladder up to near its union with the hepatic duct, and then, including portions of peritoneum, suturing the orifice so as to leave the hepatic duct alone continuous with the common duct, after having ascertained that the latter was pervious into duodenum, the whole wound might have been closed with a fair prospect of success, but under the conditions actually existant, and the difficulty in forming an exact diagnosis even after the parts were exposed, I feel that even with the more accurate knowledge gained by the *post mortem*, one might find it very difficult to pursue any other course than the one adopted.

In conclusion, had the gall-bladder been in a healthy condition and full of bile, I was struck with the ease and simplicity with which the anastomosis could have been effected between the gall-bladder and duodenum by the aid of Murphy's button, and I cannot help expressing my admiration of this ingenious device. Some years ago a brother of mine, Dr. H. Orton, of Ancaster, Ont., died, seven weeks after an accident by which his leg was badly fractured and internal injury received. At the autopsy made by Dr. Henwood, of Hamilton, and other medical men, it was found that the only internal injury was telescoping of

the bowels at two different points, at which localized inflammatory action had alone taken place, and it was impossible to pass through either anything but the finest wire probe; death resulting literally from gradual starvation, as he was not able to retain more than a teaspoonful of only liquid nourishment. His leg united perfectly, and there is little doubt that with our present familiarity with abdominal surgery, and Murphy's button, a successful effort might have been made to save his life.

SOME OF THE USES AND ABUSES OF THE NITRITES.*

BY JAMES NEWELL, PH.B., M.D., WATFORD, ONT.

Member of the American Medical Association. Late Professor of Therapeutics in the Michigan College of Medicine and Surgery. Late Physician to the Detroit Emergency Hospital, etc.

The nitrites are a group of remedies which includes the nitrites of sodium, potassium and nitroglycerine, or glonin, as it is now named in the *New Pharmacopœia*.

They are a somewhat important class of remedies, being prompt in action, but of short duration, and demanding their frequent administration to maintain continued effects.

In order to have an intelligent understanding of their therapeutic uses, it is necessary to know something of their physiological action; and while clinical experience may be the touchstone which solves the mystery of remedial agents, a good knowledge of pharmacodynamics will often restrain or prevent the employment of remedies whose administration would prove prejudicial to recovery. When taken they cause a sense of cerebral fullness, flushed face, pain in the head, rapid heart beat and lowered blood-pressure. The rapidity of heart-beat is caused by their depressant action on the inhibitory branches of the vagus, and to the sudden relaxation of the terminal arterioles in front from vaso-motor paralysis. The flushed face is caused by the dilatation of the capillaries, and the lowered blood-pressure to the lessened resistance in front. It may be accepted as a fact, to which there are but few exceptions, that when there is very little resistance in front, that is low-

ered blood-pressure, the heart endeavors to make up or compensate the loss by increasing the number of its contractions, and when we employ an agent like the nitrites which also paralyses the inhibitory centre, the number of heart beats is greatly increased.

On the nervous system their action is not so marked, but they take rank as sedatives or depressants, confined to the motor tract of the cord. In the blood they transform hemoglobin to methemoglobin, and thus lessen or destroy the oxygen-carrying function of the corpuscles. The blood becomes venous and of a chocolate color, with consequent lowering of body temperature, due to decrease of oxidation and increased radiation of heat from the dilated capillaries.

I have entered somewhat fully into the physiological action of this group of remedies, believing that it is impossible to intelligibly administer drugs without having a knowledge of their pharmacodynamics, and as "practice without theory is blind," it is just as important to know when not to employ a certain remedy as it is to know when to use it. Sometimes it demands a better knowledge and acquaintance with the principles of therapeutics.

The diseases in which the nitrites have been found beneficial are those of a spasmodic nature, whether local or general, such as whooping-cough, spasmodic croup, hystero-epilepsy and convulsions of children. Hystero-epilepsy and simple hysteria I have found to yield to a single dose of glonoin. In interstitial nephritis the nitrites, especially the glonoin in combination with digitalis, are useful. In this disease we have heightened blood-pressure, owing to spasm or constriction of the terminal arterioles, and an hypertrophied left ventricle, a condition of affairs which, if not cured, is relieved by the nitrites. Death from croupous pneumonia always comes from cardiac failure. When there is impending failure of the right heart from over-distension, the nitrites, by dilating the arterioles, thereby diminishing the work which the heart has to do and causing an equilibrium in the distribution of the blood, have been found of benefit, particularly if employed on the first appearance of the engorgement.

Migraine, when there is a spastic or constricted condition of the cerebral vessels, is sometimes relieved by their administration. Other conditions

*Read before the Detroit Medical and Library Association, September 11th, 1893.

of acute cerebral anæmia are also rapidly relieved by them—such as syncope and anæmic epilepsy.

Many other similar conditions which will suggest themselves are greatly benefited by the use of the nitrites. Cardiac dyspnoea, attended by high arterial tension, will be greatly relieved by their employment. The pain due to aneurismal pressure is sometimes alleviated by them. Generally, if they will do good in a certain case their action is prompt.

Having thus briefly glanced at a few of the indications for the use of this class of remedies, I will now turn to their abuse and contra-indications, also certain pathological conditions in which they are sometimes employed, and in which their administration is detrimental to recovery. This has been the chief motive which caused me to write this paper.

Some time ago, speaking to a somewhat eminent surgeon of this city, he informed me that he considered nitro-glycerine the best remedy he was acquainted with to combat the condition known as surgical shock. Let us look into this and ascertain what is the condition of affairs which obtains in shock :

We find the surface pale and cold, the heart beating extremely feeble, and often greatly increased in frequency, complete muscular relaxation and depression of all the vital functions. The pale, cold surface is caused by the paralysis of the vaso-motor system, and by the recession of the blood to the muscles and abdominal viscera. Now, why, in such a condition, should such paralyzing and depressing agents as the nitrites be given, except we believe in the law of similars? Is it prudent or good therapeutics in such a case to give a remedy whose chief action is to still further depress that weak heart, to still more paralyze the vaso-motor system with which the integrity of the circulation and blood-pressure is in such intimate connection and relation? I firmly believe the procedure wrong, and regret to say that the practice obtains with some, and men, too, who are not tyros in medicine, but who neglect to bear in mind the physiological action of remedies

During the past year, two eminent men have died in this country, and the public press informed us that when they were in extremis, "nitro-glycerine, a powerful heart stimulant," was given to brace up the flagging heart and prolong their

lives. Let us investigate this statement and see if we can elicit the distinguishing characteristics of heart stimulants. We find they cause, (a) increase in the number of heart beats, (b) rise in the blood-pressure, (c) increase the blood in the cerebral arteries. Do we find such to be the specific action of the nitrites on the circulatory system? No, except that the heart beats are greatly increased in frequency, caused by paralysis of the inhibitory nerve, and the dilatation of the peripheral vessels from relaxation of their muscular coats through vaso-motor paralysis. Consequently there is a loss of resistance in front which immediately results in a great fall in blood-pressure, and the resultant action serves only to intensify the already existing state of cardiac insufficiency and adynamia.

If the physiological action of a remedy is to serve as a guide for its intelligent administration in disease, I am totally at a loss to understand why the nitrites are given in cases of genuine intrinsic cardiac failure.

"A perfect circulation" is one which empties the veins and fills the arteries, the very antithesis of the condition produced by the use of the nitrites. I am, therefore, of the opinion that their employment in essential cardiac adynæmia is one fraught with great danger. In threatened heart failure from alcoholism, and when it has actually taken place from chloroform or ether, I believe the administration of the nitrites to be prejudicial to recovery, as their dominant action is to weaken the pulse and lower the arterial tension.

There are many other similar pathological conditions to which I might direct your attention, in which the nitrites are sometimes employed, with no benefit, but injury; and while I do not wish to pose as an iconoclast, or breaker of idols, my object will be attained if I succeed in directing your attention to the proper use of this group of remedies, and thereby prevent the perpetration of mistakes committed in the name of good therapeutics.

THE North-Western University of Chicago has received the handsome sum of fifty thousand dollars from Wm. Deering, the harvest machine manufacturer. The objects of the donation were, first, the enriching of the medical school, and, secondly, the perpetuation of the name of Dr. N. S. Davis in connection with a new chair.

Reports of Societies.

ONTARIO MEDICAL ASSOCIATION.

FOURTEENTH ANNUAL MEETING.

The fourteenth annual meeting of the Ontario Medical Association was held in the Educational Department of the Normal School, Toronto, June 6th and 7th, 1894.

Dr. L. McFarlane occupied the chair. This meeting was one of the most successful that has ever been held. There were in attendance some 160 members, 24 new members being added.

After the usual routine business of opening, Dr. A. J. Johnson presented a resolution asking that a committee be formed to take into consideration the question of contract and lodge practice. This was unanimously consented to.

The opening paper was one by Dr. J. H. Duncan, of Chatham, on the "Use of Strychnia in Pneumonia and Chronic Heart Diseases." He pointed out that it acted upon the vital nerve centres, making them more susceptible to external stimulation, that the heart weakness was due largely to the affection of the nerve centres by the pneumonic poison. This drug increased the irritability of the motor centres. No rule could be laid down as to dosage, but he had given in average cases a thirtieth of a grain every three hours, with marked benefit. He referred also to the statement made by certain investigators, that its use increased the number of white corpuscles, and thus the phagocytic action of the blood would be materially increased.

Dr. Saunders, of Kingston, said that there was another positive element in the heart weakness, viz., the increased amount of resistance of the consolidation in the pneumonic lung, and pointed out that the drug was of value in its direct action in stimulating the heart to overcome the obstruction until the crisis arrived.

Dr. Gaviller spoke of the great value he had derived from the use of strychnia in acute and chronic cases. He has found it particularly helpful in the bronchitis of children. He had found it assist very materially in assisting to get rid of the mucous from the bronchial tubes. He cited cases where he had used it in chronic bronchitis of the adult, with great benefit, having pushed it in one case till tetanic spasms ensued. He had employed it with digitalis with good success, but he had not given the digitalis in heroic doses as some advocated.

Dr. Temple followed with a paper on "Placenta Prævia." He gave an account of the history of

the treatment this condition had received in the past, and outlined the present lines of treatment. No hard rule could be laid down, but each case must be treated according to the symptoms presented. The great weight of evidence was in favor of the termination of gestation, especially if it were the first attack, and severe, and prior to the seventh month. He considered that where hæmorrhage occurred in the early months, there should be no hesitation, if the mother's life were in danger, in sacrificing the life of the fetus. It would only be justifiable to prolong gestation where the woman was near the seventh month, the hæmorrhage slight, the placenta latterly situated, and the woman in reach of a medical man. The patient should be put to bed, kept physically and mentally quiet, and an opiate might be administered. He did not consider there was any virtue in astringents. The procedure, if hæmorrhage occurred severely after the seventh month, he repeated, was to deliver. The membrane should be punctured, the cervix dilated, if possible, the placenta around the os separated, and ergot administered. If the cervix were hard and undilatable and hæmorrhage persistent, he advocated plugging, and that thoroughly and antiseptically, the woman being closely watched.

Dr. Burns alluded to the occurrence of post-partum hæmorrhage in these cases, and the necessity of taking extra precautions. Another point he referred to was the greater frequency of the placenta prævia in multipara than in primipara.

Dr. Mitchell coincided with Dr. Temple in the main, but referred to the difficulty of always being able to diagnose these cases. He thought possibly there was a danger of considering that whenever hæmorrhage occurred during gestation that it was due to placenta prævia, when perhaps this might not be the case. He had used for dilating the os Barnes' dilators. He referred to one or two cases he had had, and considered the great gravity of all such cases.

Dr. Sangster said that his method of dilatation of the os was with the fingers, which he found to be the most satisfactory way of accomplishing it. Dr. Hillier agreed with this.

Dr. Oldright pointed out the dangers of plugging. The uterus was a dilatable structure, and after the plug was inserted there was danger of intra-uterine flowing. He thought in most cases the os could be dilated by the fingers.

Dr. Harrison, of Selkirk, spoke of the difficulty country practitioners had in these cases, by living, as a rule, so far from them. His plan was to dilate the os, and deliver as soon as possible.

Dr. McLaughlin wished to know why ergot should be given, as it produced tetanic spasm of the uterine muscle, not producing expulsive efforts. There was thus danger of causing the

death of the child. He spoke of the old method of plugging with a silk handkerchief advised by the early teachers.

Dr. Powell reported having eight cases of placenta prævia centralis with seven recoveries. He emphasized the point that no two cases could be treated alike. He thought the statistics would be materially improved if the process of inducing labor in all cases were adopted where the diagnosis has been satisfactorily established.

Dr. Bruce Smith said that plugging should be the last resort in placenta prævia; the uterus should be emptied at once. He cited cases in proof of the value of this procedure. He repeated that the patient should be very carefully watched.

Dr. Temple said he had not found *post-partum* hæmorrhage occur after these cases any more than after ordinary ones. In reply to Dr. Mitchell he said he took it that the diagnosis had already been made; the subject he was to discuss was the treatment of the condition. As to the use of Barnes' bag, he said they were not usually at hand. He contended in favor of plugging, where it was well done, to check hæmorrhage and induce dilatation of the os. Of course, the silk handkerchief would not fill the bill at all. He deprecated the use of ergot in ordinary cases of labor, but in these cases where the child was not viable its use was alright.

WEDNESDAY AFTERNOON.

The first item of interest on the programme was the President's address, which was a very able one, and was listened to with marked attention. He referred to the history of medicine in the past, gave an idea of its present position, and referred to its future possibilities. He outlined the rise and fall of the various schools of medical thought, dwelling more particularly on the present one, the principles of which depended upon a knowledge of physiology, pathology, and the kindred sciences. He spoke of the immense strides that had been made in the development of these special branches, and of the immense aid they were to scientific diagnosis and treatment. He paid a high tribute to the late Dr. Hodder's influence upon his students in stimulating them to the study of scientific medicine. He referred to the wonderful accuracy with which the educated physician of the present day can detect the presence of disease in the most occult parts of the human frame. He also paid a tribute to the workers in the line of preventive medicine, and to those who were studying the effects of the action of the attenuated virus of certain specific bacilli in the treatment of diseases caused by these bacilli. We were not in a position, he said, to speak of the value of animal extracts in the curing of disease. He advocated the establishment of an institute similar to Koch's and Pasteur's for the advancement of the studies,

the results of which tended perhaps more than any others to the well being and happiness of the people. This should be under government control, and outside the influence of party politics. He argued that if we had institutions for training farmers, schools for civil engineers, etc., aided by government, why not an institution of this sort, whose objects were the saving of life and the prevention of disease. If the Province would take such in hand, he was sure generous aid would be given in the way of bequests by many who are in sympathy with such a work.

Dr. McFarlane, on motion of Dr. Temple, seconded by Dr. Harrison, President of the Dominion Medical Association, was heartily thanked for his splendid address.

"The Treatment of Strangulated Hernia," was the title of the next paper, read by Dr. J. Wishart, of London. Dr. Wishart's first point was a reference to what Mr. Jonathan Hutchinson had said regarding the fatality of strangulated hernia, how that, while mortality in all other surgical procedures had materially lessened in recent years, the mortality following operations for strangulated hernia had increased. This he attributed to the fact that the step of performing taxis had been left in the background, surgeons being too desirous of using the knife. Dr. Wishart gave a tabulated statement of some seventeen cases he had had during the past twelve years, in sixteen of which he had operated with twelve recoveries. He detailed the special points of interest in each operation.

Dr. Whiteman, of Shakespeare, discussed this paper and cited some interesting cases he had had, outlining the symptoms diagnosis and treatment. He spoke of the ease with which the operation could be done, and its freedom from danger. It was often difficult to know how much taxis should be used. If operation were done, and the bowel looked suspicious of gangrene, the question as to whether to return it or not was also difficult.

Dr. Rennie, of Hamilton, followed. He spoke of the high mortality in these cases. He believed there was a decrease instead of an increase. All cases have not been reported, and we have no large tabulated statements regarding the question. He believed too that taxis should not be placed in a subordinate position. Chloroform should not be given any oftener than necessary, as it tended to excite vomiting. Where the bowel was gangrenous it was because operation had not been done early. In this condition of affairs the use of Murphy's button would be a favorable form of treatment.

Dr. Grasett said that the importance of this subject was shown from the fact that it had come up for discussion so often during the meeting of the Association. He would not like to dispute such an authority as Mr. Hutchinson, yet he was

of the opinion that the mortality after operation for strangulated hernia had decreased. He had operated with good results on a patient 89 years of age. As to gangrene, no law could be laid down; each case must be judged on its merits. There were fewer cases of gangrene now than formerly, because the strangulation was sooner recognized. He cited a case he had had, where gangrene was present to a small extent, which he stitched up with a Lambert suture, returned the gut, and recovery followed.

Dr. Peters said Mr. Hutchinson was certainly very pronounced in his view regarding the use of taxis, not by gentle manipulation, but by using all the force he possibly could, and after he was tired, of getting an assistant to continue the process. Notwithstanding the statistical reports, he thought the results were exceedingly good, because if these cases were left to themselves, they would certainly in most instances end fatally; while under operation, thirty or forty per cent. of successes was a good record.

Dr. Toskey said that the maxim as laid down by the leader of the discussion were correct enough, but the difficulty was in knowing how to apply them. A great deal of judgment was required. In regard to taxis, he could understand, in a large hernia which would fill the hollow of his two hands, how one's whole strength might be placed upon it to reduce it, but this same rule would not apply to a very small hernia. With regard to the increased hospital mortality statistics in this operation, he suggested that it might be due to the fact that the ordinary outside medical man was now so well trained that he undertook these operations himself with success, and sent only the worst cases to the hospitals.

Dr. Wishart did not agree that this was an easy operation and lightly to be undertaken. There was always danger in opening the abdomen. He believed that in case a country practitioner, far removed from help, met such a case, he should give chloroform and try to reduce at once, as delay was very serious. He had never seen in the cases where taxis had been used, even to a considerable extent, any damage done to the bowel when he had opened up. The speakers agreed that where the knife had to be used the radical operation should be done, as a rule.

Drs. G. W. Fox, of New York, and Coonyn, of Buffalo, were invited during the session, to seats on the platform.

The Association then divided into sections.

SURGICAL SECTION.

Dr Bruce Smith was appointed to the chair.

"McGill's Operation for Prostatic Enlargement," was the next paper, by Dr. A. McKinnon, of Guelph. The reader of the paper gave the history of several cases he had had of prostatic

hypertrophy accompanied by urethral stricture, cystitis and severe bladder spasms. The operation consisted in a suprapubic cystotomy and removal of a portion of the prostate with very gratifying results. He outlined the technique of the operation fully, and of subsequent drainage. He quoted statistics furnished by Bellfield, of Chicago, of 41 such cases where 32 had made recoveries, the patients having regained the power of voluntary micturition.

Dr. Primrose discussed the question of the use of Peterson's bag, and the dilatation of the bladder, how this would enable the operator upon completion of the abdominal incision, of stitching the bladder wall, and holding it by means of the stitches while it was being opened, instead of cutting down upon a sound, as Dr. McKinnon had advised. He asked also, how hæmorrhage was controlled in view of the vascularity of the prostate. He advocated the advisability of perineal drainage, as in high drainage there was danger of infection of the cellular tissue in front of the bladder.

Dr. Grasset said his experience was limited in this line of work, having done, but one and that a partial prostatectomy. The result in this case was good. He thought a combination of the suprapubic and the perineal method to be the best, so as to avoid the necessity of incising the mucous membranes of the prostate; the sections being scooped out from below, the opening above enabling the operator to exert pressure downwards on the gland from above.

Dr. McKinnon said that he had found hot water would control the hæmorrhage, but if necessary the opening might be plugged.

Dr. R. Whiteman, of Shakespeare, followed by a paper on "Cholocysthomy." He described the history of a case of obstructive jaundice. It was difficult to decide whether it was due to gall stone or malignant disease, but the diagnosis inclined to the latter. Cholocystotomy was performed in the usual manner with success. As all of the bile passed out of the abdominal incision, a number of interesting features were observed in connection therewith. On the administration of calomel, the flow was lessened, but increased on the giving of salicylate of bismuth. It was also noted that when the bile decreased the urine increased, and vice versa. On post mortem it was found that an epithelial cancer occupied the region of the duodenum at the junction of the bile duct.

Dr. Graham said he was very much interested in this case, as he had seen it in consultation. The diagnosis was comparatively easy, as the distended gall-bladder was in the position one would expect it to be, and the accompanying symptoms pointed in the direction of obstruction to the outflow of bile, but he had seen cases where the diagnosis was exceedingly difficult, the gall-bladder

having assumed such a curious shape as to make it unrecognizable. Regarding the treatment of catarrhal jaundice, he advocated the use of large doses of calomel at first, then salol for three or four days, followed by the continuous administration of salicylate of soda. He was pleased with the experimentation on these cases, as it all tended to throw light on the obscure pathology of this trouble.

Dr. Teskey reported the history of a case where cholecystotomy had been done in which he had assisted Dr. Powell and Dr. A. A. Macdonald in operating. The gall-bladder was not enlarged. The crescentic incision had been made through the abdominal wall. There was considerable inflammatory adhesion of the omentum. Seventy small gall stones were removed. On account of the adhesions, it was impossible to reach the duct, but it must have been patent as the bile soon flowed through the intestinal tract, as was shown by the coloration of the fæces and the closure of the incision.

Dr. Oldright told of a case he had operated upon where there was pyæmia, the seat of pus formation being supposed to be in the neighborhood of the liver. A stone was found blocking the cystic duct, which was pressed along the duct by means of the fingers into the duodenum. The diagnosis was supposed to have been distended gall-bladder before opening the abdomen. On opening, the lump was discovered to be floating kidney.

Dr. Macdonald said in these cases death occurred after the primary operation in 19% of the cases, but where it was done as a secondary, the death rate was reduced to about 10%. An objection to this operation was the loss of such a large amount of bile, which was needed in the intestinal economy. By its loss there was intestinal indigestion. This loss would not occur after cholecystotomy. Another procedure was cholecystenterostomy by aid of Murphy's button. Murphy's latest results show 100% of recoveries.

Dr. Starr presented a patient suffering from lumbar hernia. About twelve months ago, while stooping down and lifting, he was seized with a stitch in the side. This was accompanied by the occurrence of a swelling about the size of a duck's egg in his back, below the last rib. The lump has persisted. It is slightly tender on pressure, elastic to the touch and reducible. As it returns into the abdominal cavity it gives a gurgling sensation, and emits a tympanitic note if percussed while the patient strains. Its exit was through the triangle of Petit. Its relations Dr. Starr showed by means of charts.

MEDICAL SECTION.

Dr. Mitchell in the chair.

"The Artificial Feeding and Care of Children,"

was the title of a paper by Dr. McCullough, of Alliston. He condemned the use of proprietary foods, and spoke of a combination of foods he had used, indicating the amount prescribed for an average-sized child at varying periods up to the age of twelve months. The artificial foods, especially in the country, had to be at once cheap and easily obtainable. The composition he advocated consisted of barley water, diluted cows' milk and sweetened water.

Dr. McPhedran thought the general principles outlined in the paper good, and could hardly be improved upon. The remarks as to temperature of food reminded him of the Irish nurse, who got the proper temperature of the child's bowels by inserting her hand: if it burnt them, too hot; otherwise, all right. But seriously speaking, that was about the way people temper a child's food. He advocated the thermometer for this. The food prescribed by the paper read might suit in the country, where the sanitary conditions were good, but not so in the city, and physicians had to resort to other artificial foods—often barley water alone, tea, broths, etc.; sometimes a little starch and arrowroot. But there was no universal rule, and each case had to be considered by itself.

Dr. Gregg severely denounced proprietary foods. Though people had been warned as to the evil nature of them, these foods are still largely used—more so in Canada than in the United States. From 40 to 50% of such foods consists of starch which an infant under seven months is unable to digest. He thought, instead of whole barley being used, as advocated by Dr. McCullough, crushed, or even ordinary pearl, barley preferable, being more easily prepared and answering the purpose better. He thought the subject of fixing amount for children at certain ages beyond our control, as the stomachs of infants were of different sizes at the same age; The proper rule was to give the child as much as it wants; if it takes too much, the surplus will be thrown up, and no harm done. Sterilization of milk was not important save in large cities, where abundance of fresh milk was not procurable. Experiments in American hospitals showed that children were practically starved to death by the use of it where it had been sterilized at a temperature of 212°. As a result, the practice was to have the milk placed at a temperature of about 145° for 15 or 20 minutes.

Dr. Machell said that although part of the albumen is cows' milk in coagulable part is not, and in this respect it is similar to the mother's milk; but in the latter, the percentage that is non-coagulable is twice as great as in the former. He agreed with Dr. Gregg in denouncing proprietary foods, which he said were manufactured not for the purpose of benefiting patients, but to make money, and physicians should not play into their hands when as good foods could be prescribed.

He also cited Dr. Roach, of Boston, for the statement that water will do as well, if not better than, barley water, the function of it being to get in between the casein, and prevent it from becoming lumpy. He advocated, as well, the Berlin bottle, obtainable in all drug stores at a cost of 15 cents.

Dr. McCullough in reply said that pearl barley did not come up to the mark as the virtue of the ordinary barley was, the misciline principle which is the most active. It was contained near the surface of the hull. In pearl barley it was removed. The amounts mentioned in his paper were only guides, and not intended to apply in every case. He did not think, in the case of a child, any more than in that of an adult, should food be taken till vomiting results.

Dr. Price Brown read a paper on "Atrophic Rhinitis," which was exhaustive in the cause and treatment of this trouble. Though believed by some, it is by no means incurable, but requires a long and careful course of treatment.

Dr. Wilson, of Fenelon Falls, asked if any constitutional treatment was used. He thought in some of his patients he obtained good by using some of the alternatives. He thought the origin of the disease was in infancy, and caused by the carrying of the infant with bare head or by exposing it to drafts or cold temperature, also later on in life by the clipping of the hair to the scalp.

Dr. Price Brown said he used the ordinary prescribed tonics. Patients improve in health without any medicine if the offensive discharges can be got rid of, but these foul secretions do injury to the system. Where a tonic was required he generally gave iodine and strychnine. Douches of water in large quantities were objectionable. Where secretion took place was where cleansing was required. He did not approve of covering children's heads, he considered it well, indeed, to give them cold baths.

Dr. Doolittle explained the operation of electrical massage, worked by a small storage battery, which he showed.

Dr. Campbell, of Seaforth, read a paper on "Placenta Prævia," giving the history of cases in his practice, and touching on most of the points raised on a discussion of the subject at an early part of the Convention.

Dr. Temple wished to know as Dr. Campbell advocated early termination of labor, why in a case he cited, he did not follow this rule. He did not see either the rationale of giving of sulphate of magnesia after delivery, as blood had been lost, and the patient was weak, unless it was to prevent milk fever.

Dr. Spence agreed with Dr. Temple. He spoke of the difficulty of the diagnosis. Good common sense was necessary in the treatment, and by the exercise of this, one would get as near the subject as by following any particular treatment laid

down. He reported the different stages of an important case in his practice. He thought sufficient aseptic precautions were taken by thoroughly washing the hands with soap and water.

Dr. Scadding described the method of dilating the os, followed by Dr. Harris, of New Jersey,—the thumb being placed at one side of the cervix, while the first and second fingers are flexed,—thus getting the strongest muscles with which to dilate. In a series of 8 cases, he was able to dilate the os in each of them within 25 minutes.

Dr. Mitchell asked the reason for using injections so frequently after labor terminated. He did not think injection of antiseptics necessary, unless there was reason for it, and this could be readily ascertained if the patient were watched.

Dr. Campbell, in reply to Dr. Temple, stated that the patient was being watched by him, and there had not been enough loss of blood to weaken her; otherwise he would have operated. His object for delay was that the patient was not in a fit state to be delivered, the os and the cervix being rigid. He gave chloral to soften the os and relax the parts, accompanied with a small dose of morphine, in this way preventing laceration. The reason he syringed out the vagina afterwards was to prevent sepsis.

(To be continued.)

Selected Articles.

PNEUMONIA OF THE AGED.

The title, Pneumonia of the Aged, is used in contra-distinction to Pneumonia in the Aged. The essential differences between the two clinical types were recognized and carefully described by the older clinicians, notably Grisolle and Trousseau. The distinction established by the two terms has been preserved, as it promotes the object of this paper. Any argument in support of the use of the term "pneumonia of the aged" seems unnecessary at this time. It has been called asthenic, latent, and senile, with reference to its peculiar symptomatology. Latent pneumonia occurs as a complication of various conditions and diseases, and the term senile pneumonia is employed in a manner too broad to encourage proper discrimination. Pneumonia affecting the aged may be characterized by the usual clinical history of the disease as manifested in earlier years, and resembles the so called sthenic or frank type. It attacks the strong and well-preserved individual and is accompanied by reliable indications for diagnosis. The extreme type is not common, but corresponds with the affection in middle life. This form has been designated as pneumonia in the

aged. Compared with pneumonia of the aged we notice varying degrees of dissimilarity, and the reason becomes apparent why the latter has been considered as belonging to a distinct clinical variety. To avoid the dangers of drawing fine distinctions and differentiating too arbitrarily, it may be well to state that conformity of type based upon clinical features is usually a matter of gradation, and that no attempt need be made to adhere to a rigid classification. Pneumonia of the aged differs from pneumonia in the aged in the following manner :

The disease is peculiar to the old and infirm, latent in its development, obscure in its manifestations, and erratic in its course. The familiar symptoms of pneumonia are absent or subdued, owing to mental and physical decline and debility and associated apathy of function and loss of sensibility and vigor. The constitutional symptoms are usually so slight as to cause no comment or complaint, and even when present early in the affection they are rarely sufficiently distinctive in character for one to decide whether they are due to grave disease or those ill-defined and transitory ailments of feeble old age. The attention is not attracted or the diagnosis most difficult, and consequently the disease is frequently unperceived and death assigned to other causes. Experience with the affection is mostly limited to institutions for the aged. The autopsy occasionally reveals evidence of advanced pneumonia, previously unsuspected. It is often the cause of mysterious sudden death in the aged, and might be found many times where such causes are assigned as senile debility and cardiac disease. The literature contains very little mention of this common and very fatal form of pneumonia. In the climate of the Northern States pneumonia appears to be the cause of more deaths among the aged than all other diseases combined. Statistical information seems to show that the mortality rate in those over sixty years of age is about eighty per cent. and steadily increases with advancing age. Some authorities state that after sixty-five years pneumonia is the cause of death in ninety per cent. These conclusions at least demonstrate the frequency of pneumonia in old people, and make the recognition of the most obscure and elusive cases important. In 1887 I published a rather complete clinical study of pneumonia of the aged, and endeavored to direct attention to the vague manifestations of this often perplexing affection. Since that time increasing experience has only strengthened the belief that it is frequently overlooked entirely, and that many who have not enjoyed special opportunities for investigation meet with unnecessary difficulty in determining its presence.

At this time the object will be to attract renewed attention to the subject, and to point out some of the chief clinical features to assist in diag-

nosis. It must be remarked that there is a vast difference between vigorous and feeble old age, and in the resistance which these conditions offer to disease. We are accustomed to classic descriptions of the indications of morbid conditions in the average human being of adult life, and perhaps too little stress is laid upon the influence of senility and its accompanying changes in structure and function. In debilitated old age the symptoms are less pronounced, and the value and character of physical signs often lose their significance. The inquiry must be directed, therefore, to the evidence of disease as modified by these changes, and their value estimated many times by another standard of health. We are chiefly concerned with the facts that pneumonia of the aged is atypical when compared with the description in the text books, that the difference in clinical manifestations is due to the causes already mentioned, and that a diagnosis depends upon an acquaintance with their relative value and meaning. The vast majority of all cases occur between November and May. In Buffalo the largest number develop in March, and seem to follow a cold northeast or east wind, whether the individual be confined to the house or not. The upper lobe is more often affected than in the middle-aged adult, and the disease more inclined to extend downward. In the stage of congestion the affected portion crepitates less, and the lung does not sink, as a rule, in water. The exudate is more fluid, and it is sometimes difficult to decide whether the lung is simply congested or beginning consolidation is present. Sometimes, owing to extreme rarefaction, the lung when hepaticized does not sink to the bottom of the vessel. The left lung is involved nearly if not quite as often as the right.

The pneumonia is more often double, and oedema is much more common. Tubercular pneumonia is more common than is generally believed, and there is a similarity in the clinical features. Lobar pneumonia, due to mixed infection, often follows tubercular infiltration in the aged. The clinical history is marked by the absence of the usual symptoms, or their obscurity. There are cases where the patient does not betray the slightest indication of his condition. He may walk about as usual, partake of his meals, and suddenly die without any complaint or reference to illness. As a rule the symptoms are indefinite, and much care is required for their detection. Any disturbance does not cause so much uneasiness as in the middle-aged, and subjective symptoms are not mentioned. The premonitory symptoms rarely attract any attention, and the invasion of the disease is often unrecognized, because the symptoms are vague and not of a nature to direct attention to the chest. At times, however, the onset is pronounced, and may be accompanied by delirium and great prostration. The initial chill is rarely well marked

and is sometimes absent. The most constant and reliable symptom at the outset is the elevation of temperature, usually ranging from 102° to 103°. The temperature should be taken in the rectum, as the axillary and buccal temperatures show inaccuracies and fluctuations in the aged. Later the temperature may reach 104° to 105°, or even higher. The pulse, owing to the frequency of arterial changes, is unreliable; acceleration is the cause of suspicion, but trustworthy information can best be obtained by cardiac auscultation. The respirations are not relatively increased, as in adults. Sometimes they are of a puffing or panting character. Dyspnoea and catching respiration is not particularly noticeable unless the apex is affected. The respirations rarely pass twenty-five or thirty per minute. Any effort in breathing, combined with raising of the shoulder, should lead to an examination. Cough may be slight or wanting. The cough and dyspnoea of chronic bronchitis or asthma sometimes subside during an attack of pneumonia. The characteristic sputum is rarely present. It is oftenest thin, lacking in cell elements, and, when due to coexisting œdema, watery. My experience is in accord with the authorities who state that the expectoration never becomes purulent in the stage of resolution. The absence of pleurisy as a complication is most notable, and in the large proportion of cases there is no complaint of pain. The countenance affords valuable information in the way of expression and change of color, and the mental faculties are almost always perturbed in febrile disturbances of old age. The course and duration of the disease differ from those of middle life in that the completion of the earlier stages is sooner accomplished and the stage of resolution more protracted. Recovery, when it occurs, is generally marked by a somewhat lengthened crisis; and the critical diarrhoea continuing through the lysis is more common than a critical sweat.

The inexperienced physician finds that physical examination of the chest of the aged is a new problem. Senile changes in the lungs and chest wall modify sounds, and practice alone can make one familiar with their altered character. At first there is a tendency to arrive at erroneous conclusions, aside from the suspicions aroused by the slightly altered breathing, and physical signs offer little information until the exudate has filled a portion of the lung to a considerable extent; dullness is often a sign of relative value only. The crepitant râle is seldom heard. It may be developed occasionally by obliging the patient to take a deep inspiration, but as a rule the disease is not detected until too late. If the breathing is tubular anywhere it is apt to be heard over the root of the lung. Dullness over the upper lobe is not as marked as at the base, owing to the rigidity of the sternum and chest wall and the retraction of

the lung away from the ribs. Tubular or bronchial breathing, when found, is most distinctive and sufficient for a diagnosis. It is even more intense than that heard in the adult, and is often more metallic in quality. Bronchophony is changed somewhat by the weak, quavering voice, and resembles ægophony. Deep percussion is more apt to bring out the resonance of the whole chest, and should be employed carefully. Areas of dullness found in the chest of the aged may be due to senile changes, and are often confusing. Fluid in the pleural cavity is often overlooked, and much may accumulate with slight disturbance. The insertion of a needle is more often necessary to arrive at a diagnosis. Cases occur in which the exploration of the chest gives negative or confusing results, and it becomes necessary at times to depend somewhat upon the associated symptoms; especially is this true in the earlier stages.

These briefly constitute the more reliable signs and symptoms. The important point in diagnosis is to suspect and search for trustworthy evidences of the disease. It is necessary to appreciate the extreme frequency of pneumonia in old people; the fact that of all acute diseases of the aged, pneumonia is oftenest latent, and that it produces the highest range of temperature and greatest prostration. The symptoms to be observed with greatest caution are the chill, brown, red, or dry tongue, malaise, change in breathing, malar flush, cyanosis, delirium, cough, slightest pain, prostration, increase in pulse beat, and finally the rectal temperature. The symptoms are confusing at first, and often point to cardiac and cerebral disease. It is a wise rule to exclude pneumonia of the aged, and not disregard the slightest deviation from the usual standard. Of all the characteristic symptoms, elevation of the rectal temperature is the most constant and important. I have never noted its absence, even in walking cases or in the insane. At times it is the only indication of acute disease in the aged. Broncho-pneumonia may not be associated with pyrexia, but my experience would indicate at least that *lobar* pneumonia of the aged is seldom afebrile in character.

The diagnosis must rest largely upon the high temperature and the physical signs. The diseases which frequently simulate pneumonia of the aged are hypostatic congestion, simple congestion, œdema, capillary bronchitis, pleurisy with or without effusion, and tubercular infiltration. The differentiation can not always be made by consulting the physical signs, but generally it is not difficult if prominent features of the case are considered. The points of differential diagnosis are not so broadly defined in the aged, and analysis must be cautious and slow. Finally, pneumonia of the aged is often secondary or complicating, and many times hepatization is revealed at the autopsy as the direct cause of death. In these cases the dis-

ease is unsuspected because the attention is confined to another ailment.—J. H. Pryce, M.D., in *N. Y. Med. Journal*.

THE CARE OF THE BABY DURING THE HOT MONTHS.

The heated term is now fairly inaugurated, and anxious mothers are already asking their trusted family doctor what shall we do for the baby? And how may summer trouble, so fatal to infantile life, be avoided?

Rachel is weeping for her children! Soon the little white insignia will hang from many a doorpost in our large and populous cities, for

“There is no flock how'er tended,
But one dead lamb is there;
There is no fireside howso'er defended,
But has one vacant chair.”

It is far better to prevent than to cure disease, and, first a few words to the laity. Don't attach too much importance to the fact that the baby is teething and has to have summer complaint. A large part of the infant mortality may be laid at this door. It is not so much the presence of teeth, but the absence of teeth and the presence of indigestible food, which initiates the attack. This second summer business is not over-rated, but misapplied, giving us erroneous deductions as to pathology. I have no trouble in carrying thirty or forty infants in one asylum through the summer without a single case of summer complaint, provided my rules are carried out to the letter.

The dress of an infant below two years must consist of a sleeveless shirt of thinnest all-wool baby flannel, reaching to the crest of the ilium, covering the thorax and abdomen. This should be the only flannel worn and is necessary to protect the vital organs from being suddenly chilled by sudden change of temperature, as from perspiration, or thunder showers. No flannel skirt is allowed. A calico slip reaching to the feet, covering the breast and body, completes the rig, but there is no reason why a change corresponding to change in temperature should not be made. Up to the first of July one prolonged immersion bath should be given every morning; after July 1st and up to September 1st, this should be supplemented either by tepid sponging or tepid salt water bath every evening before retiring, both the sponging and the bath to be mildly salted.

For babies artificially fed care must be taken not to increase their food under the increased thirst, but filtered water should be given often in place of food. The digestive powers are weakened by prolonged heat and nurslings at the breast are applied even more frequently than in cold weather, because of their thirst, which should be relieved

by giving water boiled or filtered. In older children, several cups of nicely prepared Mellin's food should be given instead of hearty meals of meats and vegetables. All foods should be slightly salted either with pure table salt or phosphate of soda.

When the bowels become relaxed, especially with copious malodorous liquid actions, medical advice should be sought, rather than the counsel of the ubiquitous druggists. It may be said that this *quasi* medical man is the only person who, for a few dimes, is willing to assume the responsibility of pouring “medicines of which he knows little, into bodies of which he knows less.” There is no field of practice in which antiseptic medications has proven so beneficial as in pediatrics and the heterogenous mixtures of chalk, kino and opium have been relegated to well deserved oblivion in infantile putrescent diarrhoea. The druggist is the only man who has not moved up, and it is exceedingly seldom that I get a case of summer complaint in infants belonging to the middle classes in which the druggist has not had the first pull with opiates and cordials, and this is the reason that a more marked diminution of mortality has not been recorded—from our improved therapeutics.

Very small and frequently repeated doses of calomel triturated well with sugar of milk, salol, guaiacol, thymol, beta naphthol, sulpho-carbolate of zinc and carbolic acid in lime water singly or in judicious combination without opium and an aseptic dietary will be the practice of the best physicians this summer. For cholera infantum, a disease entirely distinct from the ordinary summer diarrhoea, hypodermic medication should alone be thought of, and may be relied upon even in the most desperate cases. The practitioner should provide himself with a very fine outfit in the way of a hypodermic syringe, with very delicate short, sharp needles. A tablet of $\frac{1}{2}$ morphine and 1 150 atropine should be dissolved in a measured drachm of distilled water, four drops of which should be injected in the youngest infant, and ten in infant of two years. In the vast majority of instances, a single injection is sufficient to arrest the vomiting and purging, and to make a decided determination of blood to the skin.

The advantages which I claim for this treatment are absolute safety, in the knowledge that a definite therapeutic dose has been absorbed; promptness of action; and arrest of all exmosis. Medicines administered by stomach in cholera are entirely ineffectual, and when absorption takes place, after frequent repetition of doses, fatal narcotic poisoning attended by suppression of urine is the result. When, as is usual after the first quiet sleep, osmosis is restored, intestinal antiseptics may be administered. In dysentery, with mucous and sanguinous stools, salines and especially small and frequently repeated doses of

Rochelle, are alone necessary to a speedy cure.—
J. A. Larrabee, M.D., in *Louisville Med. Monthly*.

THE NEWER HYPNOTICS.

The following is the substance of the comments of a French chemist and physician, M. Bardet, on some of the more recent hypnotics, as given in the *Journal de Médecine de Paris*, No. 6, 1894:

Hypnone is, as we are aware, acetophenone; it produces profound sleep in animals, and, according to the researches of M. Dujardin-Beaumont, remarkable results may be obtained with it in nervous subjects, refractory to true hypnotics. This accords with the observations of alienists who are said to have found it useful in alcoholic and insane subjects. In M. Bardet's opinion, it is a very energetic agent, comparable to the narcotics, without the disadvantages of the alkaloids on the circulation and the digestion; it does not embarrass the emunctories, and in this it possesses a real advantage over the narcotics.

All the fatty ethers and related substances, the oxides like sulphuric ether for example, have a marked hypnotic action, and the study of their action is of interest. M. Bardet has studied the acetate, nitrate, and tartrate of ethyl, and the valerianate of amyl, the inhalation of the vapors of which have a clearly marked hypnotic action, thus having the advantage of avoiding the absorption and irritating action of the drug in the digestive tract.

Urethan is also a fatty ether, the carbonate of ethyl. It has a slight hypnotic action, and, as shown by M. Huchard, a large dose is required.

All the hypnotics of the fatty ether series have one interesting feature, their action though rapid is rather transient, they produce sleep quickly, and, if nothing interrupts it, it may last many hours, but they are unsuitable for excited cases, who would need large doses which would cause anæsthesia, analogous to that of the general anæsthetics. They should be used, therefore, only in cases of mild excitement, or essential insomnia, especially in women and children.

The sulfonals are complex sulfone ethers, obtained by the reaction of acetone on ethylmercaptan, they are, therefore, intermediate between the etherial and the aldehyde hypnotics. The first class, when given in more than moderate doses, approach the anæsthetics, those of the latter are more clearly hypnotic.

Sulfonal is diethylsulfone dimethylmethane; if we replace one of the methyl groups by an ethyl group (making thus three ethyls), we have trional, and if we substitute two ethyls for two methyls, we have tetronal. All these bodies have a close resemblance, they are all sulfonals, their action is identical in the same dose, they cause a deep,

heavy sleep, and their action is prolonged long after waking, a sort of sluggish intoxication. Sulfonal has, however, this great advantage of never causing any excitement as occasionally occurs with chlorals, and not irritating the digestive tract. These facts suffice to explain the important place it takes in therapeutics.

There remains the numerous aldehyde derivatives. In the first rank comes paraldehyde, a rather unreliable drug, much inferior to the chlorated aldehydes; its action is very comparable to that of alcohol, whence comes probably its success in alcoholics.

Next follow methylal or ether demethylaldehyde; a drug too little employed, which may be of great service. It has been called unreliable, a reproach merited in turn by every drug, and more often it is the subject that is the cause of this unreliability.

Methylal, in some respects, comes near to being the ideal hypnotic; it acts very quickly, but as it is eliminated, its effects are transitory. Unfortunately it is as irritating as chloral.

We come now to the numerous class of chlorals; chloral hydrate, chloralamide, chloral ammonium, chloralimide, chloralose, hypnal or chloral antipyrine, someral or ethyl-chloralurethane, ural or chloralurethane, all similar in their action. The dose is the important thing, and usually too much is given. For simple insomnia about .50 gramme is sufficient, and of chloralose about .80, and of hypnal 1., each equivalent to about .50 of chloral. With the other derivatives the same is true; it is needful to give the corresponding dose of the true hypnotic in the combination.

It seems certain that the complex chlorals have a real advantage over chloral hydrate. The combination of this latter with the amine ammonium, antipyrine, glucose, methane groups, has the effect of fixing the chloral in a less irritating molecule and having it gradually liberated in the economy. When combined with active agents, such as antipyrine, the effects of the latter will also be secured.

Conclusions:

The hypnotics have each their value, dependent on the class to which they belong.

For simple light insomnia, the fatty ethers, and among them urethan, are of service.

Sulfonal is a sovereign remedy for obstinate insomnia.

Methylal approaches the fatty ethers in its rapid and transitory action.

Chloral and its derivatives are typical anæsthetics; their dose should vary between 0.50 and 1 gramme of component chloral; in cases of light insomnia it is of advantage to use chloral compounds that are unirritant to the digestive tract.

Hypnone has an energetic action, especially favorable for agitated cases.

The bromides should be reserved for the treat-

ment of nervous affections, and have only a secondary hypnotic effect.

Lastly, the narcotics, whose action approaches that of hypnone, may be utilized in the place of the hypnotics, when the latter have failed.—*American Journal of Insanity.*

SCANTY MENSTRUATION.

Mr. President and Gentlemen of the Society: Through the polite courtesies of our worthy president, Dr. Boendall, and Dr. Andrew F. Currier, of New York, I have been invited to take part in this general discussion on menstruation, and its abnormalities. That portion of the subject being allotted to me being "Scanty Menstruation," and, as naturally happens at these meetings, time for the reading of papers on all subjects must of necessity be limited, because of the vast amount of work to be gone through with during the session, and I feel that like the first portion of my subject the term *scanty* may well apply to whatever oral flow I may now make before you. As I now understand it scanty, like profuse menstruation, indicates one of the ordinary departures from what we all understand as characteristic of a normal or healthy discharge of menstrual blood from the uterus, any deviation from which, the term "paramenia" might aptly apply.

One of the most interesting works on all the peculiar diseases of womankind to me is that of Dr. Barnes, of London, under whose tuition I had the opportunity of gaining much in an early training which proved so beneficial to me in after years. This author classifies the subject of disordered menstruation under the one term "amenorrhœa," including deficiency of the flow. But it would seem to me, that terms of this nature, like so many others we as physicians have to use in medicine, are inadequate to express that which we really mean. Many different conditions may exist that lead to exemplify one symptom to us, and this one much more prominent than others that are present; at the same time this *main symptom* is that which attracts the attention of the patient, and which eventually, causes her to seek medical advice. It must therefore become evident to us all that to thoroughly analyze our patient's condition and to discover if possible what are the associated phenomena connected with our case, as well as to what the cause of the most prominent symptom is due, becomes a part of our serious duty to discover.

With these preliminary remarks, allow me then to take up some of the various causes which seem to induce scanty menstruation, as a part of the general subject under discussion.

To my mind the most fertile soil to develop such a malcondition is to be found in the state of

the blood, and by this I mean that when the blood plasma is wanting in its normal constituents, and, where the blood globules are deprived of their natural ingredients, both caused by malnutrition, the general body *must suffer*, and the term "chloro-anæmia" therefore has thus been given to express such a condition. As to this class of chlorotic patients there could be much said, more especially by the specialist in nervous diseases, and, as I write, I can bring to my mind much of solid worth as coming from the pen of such men as Goodell, and Mitchell of Philadelphia, who not only recognized the curious neurotic elements connected with such cases, but also through this knowledge made application of the same by instituting a course of treatment which has availed much for suffering women.

Should we draw a comparison between the society woman of to-day, the humble, hard-working peasant and the Indian squaw or stout negress of our southern latitude, it would be difficult to believe that all could have sprung from the same parent stem. Indeed, observation goes far to prove that those of the female sex who are not exposed to deprecating influences can compete in strength and endurance with the men of their races. From such facts as these, logically reasoning, the human female if properly developed and placed beyond conditions which militate against her physical well being would in *no* degree be the inferior of the male. The present customs consonant with the age in dress, exercise and general hygienic details, seems to be the vice which tends to bring about this condition of "chloro-anæmia," with the result of a disordered menstruation and in the scantiness of its normal flow.

Long ago Dr. Thomas A. Emmett pointed out the importance of not permitting young girls who were just coming into their maturity to exercise their mental capacities at the expense of their physical capabilities. There is but little question that *such* advice was good, and instead of the young ladies of to-day being encouraged to engage in outdoor sports, very few have had such opportunities, and, I imagine that it would be wiser for them and their general health were they thus properly trained and instructed; want of air and exercise in deteriorating the blood, enfeebling the two great systems of the body, the nervous and muscular, should be properly classed as two of the most important factors as causes for so many of the menstrual disorders of the day. The necessity for the proper maintenance of these symptoms must be recognized, and the "*mens sana in corpore sano*" surely becomes essential to a healthy condition. Girls of tender age are required to apply their minds too constantly to master studies beyond their mental capacity, because of the so-called "progress of the times." The results from such training being a rapid

development of the whole cerebro-spinal nervous system; precocious talent, refined and cultivated taste, etc.; but, on the other hand comes as a result, the morbid impressibility that plants itself upon the generative organs. And added to this class of such functional uterine morbidities, among which is to be placed scanty menstruation, would naturally come the subject of the improprieties in the manner in which women clothe themselves. I cannot better than express with Thomas of New York that the dress adopted by the women of our town may be graceful and becoming; it may possess the great advantage of developing the beauties of the figure; but it certainly is conducive to many menstrual troubles. The process of respiration is entirely done by the thoracic muscles; the diaphragm taking a most important part in the performance of this physiological process, the proper action of this function must therefore be interfered with by the current custom of tight lacing. The habit of contracting the waist in such a manner "accomplishes what the surgeon does when he holds a broken rib in place by a snug bandage." Thus come many troubles to the pelvic organs which lie in such close relation, and which must therefore partake of functional difficulties. In estimating the effects of direct pressure from the position of the uterus, its extreme mobility must be constantly borne in mind. No more striking evidence of this fact can be cited than that as proven by the use of the Sims speculum in our usual examinations.

Other causes might be enumerated as giving rise to this form of disordered menstruation, as imprudencies during the menstrual nixus, or after partruition, prevention of conception, or induction of abortion, etc. But time will scarcely permit of any particular discourse upon these subjects. Suffice it to say that they remain unfortunately as factors of causation, and I am afraid before much improvement can be attained for their removal a desire must first be cultivated in the minds of those who are the sufferers, and as a rule, I regret to say, that in my experience neither desire nor the appreciation of the importance of such a subject toward the requirement of physical excellence sufficiently exists among the more refined and better class of the women of to-day.

Chloro-anæmia as a physiologico-pathological condition, may, and can well exist, resulting in scanty menstruation. As to climate and its influences upon this function (menstruation) one might say something, but the subject is so well known to us all, that I shall refrain from speaking of it except to mention it as an additional cause of the malady in question. Serious disease of the kidneys or of the lungs, as well as many of the zymotic troubles so frequently encountered, are also to be regarded as contributing causes toward disturbing the normal function of menstruation,

often bringing about a scantiness of the flow, and even at times causing it to cease entirely. Often a leucorrhœal discharge at periodical intervals in women thus diseased takes the place of a normal flux, which subject has been thoroughly discussed by Dr. Currier, of New York, at different times before this society.

In my experience I cannot say that I have met with other causes for scanty menstruation. It may be possible that many forms of uterine tumors or other pathological growths connected with this organ are productive of it, yet the most pertinent factors seem to me to be those already cited, chloro-anæmia being the most prominent of all. With this in mind, therefore, it would seem to appear from a purely physiological standpoint, that treatment should be directed toward correcting so far as is possible this condition.

According to Virchow, chlorosis or chloro-anæmia is to be distinguished from leukæmia or leucocythemia, in that the entire number of blood globules is *less*. In leukæmia the colorless corpuscles seem to take the place of the red ones, and a true diminution in the number of the cellular elements in the blood is not produced. In chloro-anæmia the elements of *both* kinds become less numerous without the occurrence of any disturbance in the numerical relation between these different corpuscles. This sage pathologist goes on to say further, that "Anatomical observations indicate that the foundation of chlorotic ailments are very early laid; for the aorta and the larger arteries are usually, and the heart and sexual organs frequently, found imperfectly developed."

To originate a new function, to bring to perfection a hitherto unexercised power, *must* make great demands upon the physical strength, and often, unfortunately, these demands are larger than are required for its continued activity. Numerous instances must come to our mind where, after menstruation has become fairly established, chloro-anæmia suddenly and unexpectedly makes its appearance, suppressing either partially or completely the flow. In many such cases emotion frequently plays an important part. Jealousy, disappointments of various kinds, especially those offending the affections; the "*spretæ injuriæ formæ*" are often the immediate antecedents which eventually result in impoverishment of the blood. Naturally in the treatment of such conditions as described, iron as a remedy par excellence is the first suggestion that appeals to the physician, and such may be true, but I might add only in its *timely and proper administration* which requires more judgment than is commonly shown, and from clinical experience I can well agree with Barnes, that this drug is only tolerated after vascular excitability or irritability is assuaged, it then becomes readily assimilated. To bring

about this result most satisfactorily is best done by the use of salines, and I have found that the old preparation of the "liquor acetate of ammonia" when freshly made fulfils the purpose most admirably. After the use of this or other salines iron can be given with most decidedly beneficial effects.

Electricity, too, as suggested by many, holds a most important place as a factor in the treatment of this disorder. Again I can agree with Dr. Currier's statement made before this society, that I fail to see much benefit arising from the use of manganese in any of its various forms. Other drugs might be mentioned, all useful in their way, in the treatment of this malady, each one having its champion to second its merits, but time will not permit at present of speaking further in this direction.

To summarize then I would say :

1st. That scanty menstruation is most usually the result of mal-nutrition in both young and middle-aged women, married or single.

2nd. That the primary seat of this trouble lies in the condition known as chloro-anæmia.

3rd. Its treatment must be directed in an intelligent manner toward rectifying this condition.

And lastly, that a persistent patience must be persevered in with the various forms of treatment laid down, if a permanent cure is to be expected.—Franklin Townsend, M.D., in *Galliard's Medical Journal*.

DELAYED UNION IN FRACTURE.

In these days of antiseptic surgery, we are, perhaps, a little too hasty in regard to the treatment of delayed union in fractures and do not give Nature time to effect repair. The length of time taken for repair was unusually long, yet the result in both cases here reported has been perfect.

CASE I.—*Delayed union in a fracture of the femur.*—(Notes of Dr. Wm. H. Shipps, of Bordentown, N.J.) On January 20, 1893, L. M., a young woman, seventeen years of age, while coasting, was violently thrown from a sled, sustaining a fracture of the right femur at about the junction of its middle and lower third. She was at once carried to her home, placed upon a firm mattress and sandbags and extension by weight and pulley employed. The patient, an intelligent girl, recognized from the start the importance of keeping the fragments in position, and labored in every possible way to avoid disturbance of the limb; so determined was she in this respect, that she avoided in so far as possible, a regular evacuation of the bowels, although assured of the folly of such a course. Having a most capricious appetite, it was difficult for the

first six weeks to get her to take a sufficient quantity of nourishment, although the necessity for this important aid in bone repair was constantly urged upon her.

At the end of four weeks the dressings were removed and the limb carefully inspected. No shortening was detected, but to my chagrin no attempt at union had taken place, notwithstanding the parts were in perfect apposition. The dressings were carefully re-applied.

On March 20, two months after the injury, an examination showed entire absence of bony union. At this juncture I requested Dr. Morton to see the case with me. It was agreed to resort to daily massage of the entire limb, especially in the vicinity of the fracture, and to lessen the amount of extension. The limb was also encased in a firm dressing made of two Russia felt splints; a posterior one, extending from the great trochanter to within six inches of the ankle; an anterior, extending the entire length of the thigh, firmly held in place by a roller bandage. Four weeks later the patient was allowed to get out of bed daily and walk about on crutches, care being taken that no weight be borne upon the limb. This plan of treatment was faithfully carried out; the appetite of the patient materially improved.

In the course of three weeks the circumference of the limb had visibly increased, and an evident attempt at bony union noticed.

From this on the limb gradually improved in size and strength, until at the expiration of eight weeks from the commencement of massage, at which time Dr. Morton again saw the case, consolidation was complete. The dressings were continued for a few weeks longer, when a single roller bandage took the place of splints. Careful measurement of the two limbs at this time failed to show any appreciable shortening. Altogether the case made a most satisfactory recovery.

CASE II.—*Delayed union in fracture of the leg.*—On August 1, 1893, Captain A. S., aged fifty-one years, while at Ivigtut, South Greenland, in command of his vessel, received an injury to the right leg by the fall of a bulkhead or partition which separated the cargo of kryolite from the ballast; a medical man from the shore who was summoned, found the left leg seriously crushed, and an oblique fracture of both bones about the juncture of the middle and lower third; he applied temporary pasteboard splints, and the patient was hoisted from the hold. Four days later, bandages, pasteboard splints and a plaster dressing were applied. Three weeks later the swelling of the limb had so subsided that he observed not only a considerable movement, but a grating of the bone; six weeks subsequent to the injury the dressing was removed when it was found that there was little if any union; posterior board splint was applied, and two weeks later he

left Greenland and arrived in Philadelphia on October 17th, seventy-eight days after the accident; he then entered the Pennsylvania Hospital. General condition good. The limb was greatly swollen, skin dry and rough, evidently no attention had been given to the condition of the circulation, for the limb had not been out of splints for many weeks, and had not been bathed since the accident; there was little if any effort at repair in the fracture. Attention was first directed to improving the circulation of the limb by soaking in warm water and by massage; fracture box; subsequently Russia felt splints; finally a brace was applied. He was discharged December 11, 1893, with considerable union, which was not firm until the close of January, when he was able to walk without any support.—Thos. G. Morton, M.D., in *the Med. and Surg. Reporter*.

ATROPINE AS A HÆMOSTATIC.—The great value of atropine in the various forms of shock is generally recognized, while its hæmostatic properties in all forms of hæmorrhage are not so well known. Atropine, by its power to stimulate both the primary and secondary vasomotor centres, and at the same time excite the cardio-innervating centre, tends to increase the power and efficiency of the heart's action. By its power to stimulate the innervating impulses distributed to the muscular coats of the arterioles and heart, the volumetric capacity of the arterial system is expanded, and more completely filled with blood, and in this way it is taken from the distended veins and the loss of blood is arrested. This change in the position of the bulk of the blood brings about lessened pressure in the veins, and a clot forms, the vessel closes and the hæmorrhage ceases. As a hæmostatic in all kinds of hæmorrhage when the bleeding is of a passive nature it is almost a specific. In epistaxis it is invaluable, if not a specific, in doses of one hundred to a fiftieth of a grain given hypodermically as often as every twenty minutes, until the blood is completely stayed. Dmitrieff reports the successful management of two cases of metorrhagia by atropine.

In one case the hæmorrhage persisted in despite the employment of the usual remedies, including the tampon, but ceased after the injection of one twenty-fourth of a grain of atropine. The second case was that of an anæmic woman, who became syncopal and cold from the loss of blood. The first injection was followed by improvement and the third by the cessation of the bleeding.

Atropine in hæmorrhage has proven in my hands to be the best possible remedy. It is free from danger, acts immediately and can be used conveniently from the fact that most hypodermic cases contain the remedy. A trial will convince one of its great value.—J. Wellington Byers, M.D., in *Charlotte Med. Jour.*

PETIOSIS RHEUMATICA.—Before the Clinical Society of London, May 11th, Mr. M. Randell read notes of a case of a married woman, æt. 41, who for some years had suffered from dyspepsia and diarrhœa. She had been much addicted to alcohol. There was no history of rheumatism, acute or chronic. On September 2nd, 1893, she was taken ill with pain and swelling of the joints, accompanied by a rash consisting of papules, some pale, most of them hæmorrhagic, varying in size from a split pea to a five-shilling piece. The temperature was about 100° F. Severe diarrhœa and vomiting set in a week later, the motions containing much altered blood, but the vomit was free from blood throughout. The rash continued till death, the old patches fading away and others taking their place. There was œdema, especially of the hands at times, confined, however, to the region of the affected joints. About a fortnight after the commencement, some of the papules sloughed, leaving foul ulcers. She died on September 21st, after three weeks' illness. The urine contained a microscopic amount of blood: *Post-mortem* petechiæ were found on the serous membranes. The lungs were healthy, and there was no sign of endocarditis. The intestines showed many ulcers, commencing in the duodenum and extending to the end of the ileum, but not to the large intestine. The liver, which was markedly fatty, weighed 103 ounces. The kidneys were normal.

Dr. Rose Bradford said the case was not one of erythema nodosum, the papules being found only in the neighborhood of the joints. Neither was it one of ordinary acute rheumatism, there was no former history of rheumatism; very little swelling and not much pain of the joints. Neither was it one of syphilis; no history of syphilis could be elicited. There were, however, all the symptoms of peliosis rheumatica, except submucous hæmorrhage; but, possibly the gastric and intestinal ulcerations were due to submucous hæmorrhage and subsequent sloughing of the undermined mucous membrane.—*Med. Press and Circular*.

VACCINAL OPHTHALMIA.—In a recent Bohn thesis Dr. Schmitz discusses this subject, founding his study upon the case of a woman who, in consequence of carrying a vaccinated child, accidentally inoculated her eye with vaccinia. An abstract of the essay is given in the *Presse médicale* for May 5th. The woman was not examined until five weeks after the beginning of her trouble; she then presented ulceration of the cornea with iritis, but without special features. The author considers the lesions as of vaccinal origin, but the reporter, M. V. Morax, thinks that this is by no means demonstrated. The author has found in medical literature five cases of vaccinal keratitis and twenty-five cases of a vaccinal eruption on the eyelids. When the affection develops in the eye

it generally begins by a little ulceration of the lower lid, appearing four days after the inoculation. There is œdema of the eyelids, together with chemosis, which is sometimes very pronounced. The base of the ulcer is usually indurated, so as to suggest a syphilitic chancre. Then further ulcerations are developed on the margin of the lids. On watching the evolution of the ulcers, it may be noticed that they proceed from pustules which, as a rule, do not present the characteristic central depression. The patients often have certain constitutional symptoms. Then, after the lapse of from eight to ten days, recovery begins and advances very rapidly. It is uncommon to see the vaccinal eruption invade the cornea. When it does, it generally forms little ulcers bordering on the edge of the cornea. These ulcers heal without leaving scars. In five exceptional cases the lesion occupied the central portion of the cornea.—*N. Y. Med. Jour.*, June 2, 1894.

THE ACTION OF LIGHT UPON THE DIPHThERIA BACILLUS.—A recent number of the *Archives de Medicine Experimentale* contains an article by Dr. Ledoux-Lebard, detailing the results of experiments undertaken by the author for the purpose of ascertaining to what extent sunlight is effective as a means of destroying the microbes of diphtheria. The special purpose of the experiments was to determine whether the influence of diffused light is destructive of germs as well as the direct rays of the sun, as shown by Roux and Yersin. The conclusions to which he arrived are as follows:

1. The action of diffused light does not prevent the development of cultures of the diphtheria germ, either at a temperature of 95° or at ordinary temperatures. The direct rays of the sun arrest the development of the germs, and sterilize the culture medium in a few days. Diffused light has no bactericide power in relation to bacilli in neutralized bouillon, but has a marked bactericide power in relation to diphtheria bacilli in distilled water.

2. Diffused light kills dry cultures of diphtheria spreads in thin layers, in less than two days (twenty-four hours' exposure to light).

3. The direct light of the sun acts in the same manner as diffused light, but with greater rapidity.

4. The bactericide power of light in relation to the diphtheria bacillus is due almost entirely to the most highly refracted rays of the spectrum.

5. The less refracted rays of the spectrum have little or no bactericide power.

6. Light, by virtue of its bactericide power, sterilizes in less than two days the bacilli of diphtheria, either moist or dry, and hence is a prophylactic agent against diphtheria.

7. In diphtheritic membranes exposed to the light, many of the bacilli are reached only by the light after it has lost a part of its intensity, and

hence retain their vitality and virulence for a long time.

8. Light may be utilized in the disinfection of places contaminated by diphtheria.

The persistence of the virulence of the germs of diphtheria is well known, but a careful study of the classical examples of extreme persistence of this virulence shows that in the majority of cases, the contaminated objects had remained a long time protected from the light. In one case, for example, a brush which had been used for making applications to the false membrane of a child, communicated diphtheria to the father four years afterward, having been, in the meantime, wrapped in paper and placed in a drawer.

In other cases the means of contamination has been clothing which had been worn by a diphtheritic patient, and which had been protected from the light in a chest or closet.—*Modern Med.*

PERTINENT FACTS ON VACCINE VIRUS.—Keep in a glass-stopper jar in an unheated room in winter and in a refrigerator in summer. Do not carry in an inside pocket. Do not use too much water. Do not abraid too large a surface. Do not use any dressing. Do not report until the 8th, or better, the 10th day.

Our plan of operating is as follows: We scarify by scraping off the scarf-skin from a surface about one-fourth of an inch square over the insertion of the deltoid muscle, scratching the surface thus abraded in two directions. We touch one side of the ivory point with a drop of water, immediately shaking the excess off; rub this side briskly on the abrasion and then form a paste by using the dry side of the point. We finish the operation by gently scratching the virus in with the point we have used. We are then certain of getting some of the vaccine corpuscles within reach of the mouths of the absorbents. To much water, with the serum that exudes from the arm, frequently washes away the corpuscles, while too thick a paste, if not pricked in, will dry as a varnish, beyond the reach of the absorbents which have been closed by the rubbing process.

If you protect with a shield, see that it is properly ventilated. Failures result from, Using unhealthy or poorly fed cattle. Pressure used in removing Lymph. The clamor of physicians for colorless points. Hot mail-cars, drug stores and physicians' offices. Improper methods of operating. Old goods, or muclage and croton oil points! sold at cut rate prices, while human lives are sacrificed.—Dr. H. M. Alexander, in *Med. and Surg. Rep.*

PARALYSIS FOLLOWING MEASLES.—(P. A. Lop, M.D., *Gaz. des Hospitiaux*). Paralysis following measles is a comparatively rare affection, less than a hundred cases having been reported in all. This

is probably due, however, to its usual transitory character and to the fact that it appears most frequently in the third week of convalescence, after the patients have passed from immediate observation. Two adult cases have been reported, but the usual time of its appearance is that of the appearance of other forms of paralysis.

In the cerebral form, which is most grave but less frequent, paralysis occurs preceded by spasmodic muscular movements and exaggerated reflexes. The electrical reactions remain normal, however, and the disease runs a rapid course.

In the spinal variety, on the contrary, the reflexes are rapidly lost, and the electric reactions are much modified, but the course is most frequently benign. It usually takes the form of paraplegia, commencing with formications and cramps, followed by retention of urine and incontinence of feces. Occasionally it is of the ascendant variety, ending in death by paralysis of the diaphragm. Its diagnosis is easy, as it occurs in convalescence from a fever; its course is rapid, from one to six weeks; the spinal form is frequent, and the patient always recovers.

Its pathology is, probably, a congestion caused by a specific bacillary toxine in the blood, which in the grave forms has produced a true inflammation and atrophic sclerosis.—*International Med. Mag.*

PNEUMATIC CABINET IN PHTHISIS.—Dr. Chas. E. Quimby believes, as a result of six years' experience, (*International Medical Magazine*), with the pneumatic cabinet, "that from seventy-five to eighty per cent. of localized tuberculosis, if seen reasonably early in the first stage, can be brought to and kept in a condition of practical cure by the use of the pneumatic cabinet and adjuvant measures other than climate; that cases of disseminated tuberculosis will be arrested in about fifty per cent. of cases, but will require treatment for long periods; that subacute cases may be arrested and made quiescent, when seen first in the second stage, in possibly fifteen per cent. of cases; that third stage cases, if chronic, are always relieved in their rational symptoms and their downward course made easier; while those following acute consolidation are benefited but little, if any, and without care may be made worse. Bronchial hæmorrhages are arrested almost without exception, and frequently do not return, even when the cases progress unfavorably. With rare exceptions all the subjective symptoms are relieved, even when the phthisis is not arrested."—*Med. Rec.*

SUGAR AS AN OXYTOCIC.—In the *Revue internationale de bibliographie médicale, pharmaceutique et vétérinaire* for April 25th, there is a summary of an article on this subject published in the *Semaine médicale*. On the strength of observa-

tions by Dr. Mosso and Dr. Paoletti, as to the action of sugar on muscular power, Dr. Bossi conceived the idea of administering it in cases of defective uterine contraction during labor. He found that it answered the purpose well, and was free from the inconveniences attending the action of ergot. In eleven cases of uterine inertia during labor an ounce of sugar dissolved in water was given, and in ten of the patients it had a most favorable effect on the pains. The ebolic action of sugar is apparent in from twenty-five to forty-five minutes, and in many cases it is sufficiently prolonged to accomplish the expulsion of the child. In some cases it has been found necessary to give a second dose of the same amount, an hour after the first one, in order to terminate the labor. The contractions excited by sugar are always perfectly regular, and never take on a tetanic character.—*N. Y. Med. Jour.*

THE EFFECT OF ETHER AND CHLOROFORM ON THE KIDNEYS.—Wunderlich, after the examination of the urine in 125 cases, before and after anæsthesia, draws the following conclusions as to the effect of ether and chloroform narcosis on the kidneys:

(1) An already existing albuminuria is often increased by etherization. No such case in which chloroform was given was observed.

(2) Albuminuria can be caused by narcotization with chloroform and ether, more often with chloroform, the relative frequency with which it occurs after the use of chloroform and ether being 11.5 to 6.9.

(3) As a result of the use of chloroform, casts may appear in the urine. This is less frequent after the use of ether. The relation of frequency is 34.8 to 24.6.

(4) When casts are already present, both anæsthetics have the effect of increasing the number.—*Boston Med. and Surg. Jour.*

PROTECTION AGAINST POISONING BY LINIMENTS, ETC.—A most ingenious device for preventing mistakes in taking a wrong medicine has been contrived by Mr. R. Watson Councill. These accidents generally occur with medicinal preparations contained in bottles, as for instance, by the taking of a poisonous liniment instead of a mixture. To obviate this, Mr. Councill proposes to adapt the cork of a bottle containing liniment or other poisonous preparation, so that on proceeding to take the cork out a warning is given as to the contents of the bottle. For that purpose the cork is cut in two, horizontally, the two portions being then threaded along the vertical axis upon a piece of string, the lower end of which is knotted so that it cannot be drawn through the cork, while the upper end has a piece of paper attached bearing the word "poison." The two

portions of the cork when threaded upon the string can be put into the neck of the bottle as well as if the cork had not been divided horizontally; but, on proceeding to take out the cork in the ordinary way, only the upper half of it will be removed, and the neck of the bottle will still remain closed by the lower half of the cork, so that the contents of the bottle cannot be poured out. In that way the possibility of unconsciously swallowing a poisonous liniment by mistake would be prevented, and the person endeavoring to take out the cork would be informed, even in the dark, of the fact that the wrong bottle had been taken up. The simplicity of this contrivance is a great recommendation, and it has the further important advantage that it is applicable to any bottle without being a permanent distinction after the use of a bottle for a poisonous article is at an end.—*Brit. Med. Jour.*

EXAMINATION OF SPUTUM.—Zenoni first recalls how mucus has been shown to stain with anilin dyes, and how this fact has been used to distinguish the sputum of pneumonia from that of bronchitis, as for example, with Biondi's three-color stain. The author, however, prefers saffranin. Bizzozero showed how the mucin in cells stains yellow or brownish yellow with saffranin, whereas the nucleus and rest of the cells stain red. The author spreads a thin layer of sputum on a cover glass, and allows it to remain under alcohol for a quarter of an hour or longer to coagulate. A half concentrated watery solution of pure saffranin is then applied. If examined against a white ground the bronchitic sputum appears yellow, whereas the pneumonic sputum looks red, the difference being due to the albuminous nature of the latter sputum. If these two kinds of sputum are mixed distinct traces of yellow are visible. The method is useful for distinguishing between them.—*Times and Reg.*

STRYCHNINE AS AN ANTIDOTE TO CHLOROFORM POISONING.—Washburn, *Therap. Gaz.*, records a case of a patient who had swallowed two ounces of chloroform with suicidal intent, being found in the street in a condition of profound narcosis. His pupils were widely dilated and inactive. His respiration was so shallow as to be almost imperceptible, and he had the weak, irregular pulse of a dying man. One twentieth of a grain of strychnine was injected hypodermically, and artificial respiration applied, with the result that after a few minutes the whole aspect of the case changed, the respirations becoming deep and full, and the pulse also improved. After an hour another injection of 1-60 gr. of strychnine was given. Two hours after being called to the case the author was able to communicate with the patient, and to get him to confess the cause of his

condition. Recovery was complete, the patient, however, passing through a severe attack of gastritis.

THE THERAPEUTICAL VIRTUES OF SANMETTO.—In just appreciation of the virtues of SANMETTO, I have to state that in several cases of prostatitis, atony of the urinary bladder, loss of semen and sexual capacity, I have tried the preparation, and in every instance my patients have derived some benefit from its use. I shall continue to commend SANMETTO to my patients in the like afflictions, with perfect confidence.—LOUIS BAUER, M.D., M.R.C.S., Eng., Prof. of Surgery, etc. St. Louis College of Phys. and Surg.

RADICAL METHOD OF CURING CORNS BETWEEN THE TOES.—Dr. A. M. Phelps advises that in case of corns between the toes, which after ordinary treatment recur, the skin between the adjacent toes should be entirely removed and the toes brought together by a line of sutures and allowed to unite. The webbing of the toes is entirely unimportant.—*Medical Review.*

APPENDICITIS—THE LATEST FAD.

Have you got the new disorder?
If you haven't, 'tis in order
To succumb to it at once without delay.
It is called appendicitis—
Very different from gastritis
Or the common trash diseases of the day.

It creates a happy frolic,
Something like a winter colic,
That has often jarred our inner organs some:
Only wrestles with the wealthy,
And otherwise most healthy—
Having got it, then you're nigh to kingdom come.

Midway down in your intestine,
Its interstices' infestins',
Is a little alley, blind and dark as night,
Leading off simply nowhere,
Catching all stray things that go there;
As a pocket it is clearly out of sight.

It is prone to stop and grapple
With the seed of grape or apple,
Or a soldier button swallowed with your pie.
Having levied on these chattels,
Then begin internal battles
That are apt to end in mansions in the sky.

Once located, never doubt it,
You would never be without it,
It's a fad among society that's gay;
Old heart failure and paresis
Have decamped and gone to pieces,
And dyspepsia has fallen by the way.

Then stand back there, diabetes;
For here comes appendicitis,
With a brood of minor troubles on the wing;
So, vermiform, here's hoping
You'll withstand all drastic dosing,
And earn the appellation, "Uncrowned King!"

—*The World, New York.*

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[A Monthly Journal of Medical and Surgical
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Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address, DR. J. L. DAVISON, 12 Charles St., Toronto.

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AGENTS.—DAWSON BROS., Montreal; J. & A. McMILLAN, St. John, N.B.; GEO. STREET & Co., 30 Cornhill, London, Eng.; M. H. MAHER, 23 Rue Richer, Paris.

TORONTO, JULY, 1894.

The LANCET has the Largest Circulation of any
Medical Journal in Canada.

THE ONTARIO MEDICAL COUNCIL.

The last session of the Medical Council, as at present constituted, has come and gone; all the members were present, including Sir Jas. Grant, whose political duties had hitherto largely interfered with his attendance. As was anticipated, no new legislation of an important or radical character was introduced; this is right, inasmuch as the incoming Council may, in some respects, differ from its predecessor. A few of the territorial representatives have announced their intention of retiring from the field; the redistribution of seats and addition of five affected by the recent amendments to the Medical Act, and the chances and changes that are inseparably a feature of all elections will, to some extent, alter the *personnel* of our next Council; therefore, considering the differences of opinion in the profession as evinced by the controversies of the past year or two, it is only fair to every medical man in the Province that on important questions his voice should figuratively be heard through the ballot box.

An offer having been made for the college property, the disposal of which is a main plank in the platform of the Council's critics, it resolved itself into a grave problem and received much consideration. The amount offered was in excess of the cost, and, while perhaps an inducement in the minds of some to sell, it was self evident proof that the acquisition of real estate was not a wild speculation. Toronto property, so those who know best say, is at rock bottom figures. Before

next session it is not probable that we shall see depreciation. The mind of the profession as to the desirability of retrenchment in this respect can be ascertained only through the electorates' action at the polls; and, therefore, it was concluded to leave the matter for the present in abeyance.

Dr. Philip, in accordance with the usual custom, was advanced from the vice-presidency to the presidential chair, and showed such good judgment, that, although at times debate waxed hot, we are not aware of an instance in which his ruling was called in question. There was keen competition for the honor of the vice-presidency, which was secured by Dr. Harris, the representative of Trinity University.

The Registrar and Treasurer having discharged their duties satisfactorily were re-appointed.

From the prosecutor's report it is assuring to learn that a large number of charlatans have been dealt with by the law, and, in order to facilitate this work and stamp out these pests of society, it would be well for every medical man to recognize his individual responsibility in the way of furnishing information; by so doing he need incur no false opprobrium, for, unless he so desires, his name in connection with such affairs is never dragged into publicity.

The Discipline Committee reported upon the cases of three practitioners charged with unprofessional conduct; in each case the evidence sustained the indictment, two out of the three names were ordered to be erased from the register, and in the third case, for what appeared good reason, action was deferred. The feeling of the members seems to be that the leniency heretofore exercised has been taken advantage of, and that the time has now come when justice is more desirable than mercy.

From the Ontario Medical Association was received a resolution adopted in its recent meeting condemnatory of lodge and contract practice, and requesting the Council to construe it as *unprofessional*, and therefore to purge the profession of all engaged in it. The Council's power in this regard is limited in the statute by the phrase "*grossly unprofessional or infamous.*" To seek for further legislation giving increased prerogative would at the present juncture be perhaps injudicious and possibly would encounter the personal prejudice of a majority in the Legislature.

Although contract practice of any kind is strongly to be deprecated and against the best interests of the profession, the conclusion inevitably arrived at was that the remedy is in the hands of the various medical associations, and not within the jurisdiction of the governing body.

The agreement with the Ontario Journal Publishing Co., was, after animated discussion, renewed for another year, with which action we cannot agree. We leave aside the injustice done to other journals that have invariably striven for the benefit and elevation of the profession in Ontario, and view the matter on much broader grounds. To subsidize a journal with the proviso that it be supplied free is, in the eyes of many, nothing else than giving a retainer to an advocate. For some years verbatim reports of the Council proceedings have been supplied in the Annual Announcement, and rightly, for thereby interest is aroused and laudable criticism invited. The members of the Council are representative men, and it is to be inferred ready to vindicate their record.

We sincerely regret that the respected veteran of the Council, Dr. Fenwick, has gone over to the great majority, and we congratulate the Western University in having selected as his successor a gentleman so popular as Dr. Moorehouse.

POTASSIUM PERMANGANATE.

Permanganate of potassium has recently been brought prominently before the profession as an antidote in cases of poisoning by morphia, and would seem, from experimental evidence, to be a most valuable addition to our resources, in the management of these cases.

It was found that if morphia and the permanganate were brought together in solution, the presence of morphia could no longer be demonstrated by chemical tests, and the solution might be swallowed with impunity, so far as any poisonous effects of morphia were concerned.

In November, 1892, a report appeared, of experiments made by Bokai, with phosphorus and permanganate of potassium. He found that phosphorus in the presence of the permanganate was converted into innocuous orthrophosphoric acid in the stomach, with the development of manganese chloride.

The experiments were made on dogs: all those treated recovering, those untreated died.

In March last, investigations made by J. Kossa (*Vratch*) on the use of this drug in poisoning by the cyanides, were recorded in the *Druggists' Circular and Chemical Gazette*.

Kossa found that rabbits were fatally affected in a few minutes by .01 gramme of potassium cyanide, but if, at the time of administration, .5 gramme of permanganate, dissolved in water, was administered, doses of cyanide up to .1 gramme failed to cause death.

Larger quantities (.2 grammes), however, proved fatal, although the action of the poison was much delayed. The same results were obtained when hydrocyanic acid was used.

It was suggested, therefore, that in poisoning by cyanides, one-half to one-third of a litre, of a three- to five-per-cent. solution of permanganate, be administered immediately.

While these various experiments are interesting, and the antagonism of the permanganate to these poisons can be demonstrated in the laboratory, it remains to be seen to what extent this drug will be useful after these poisons have been absorbed. Even if it should prove useless after the poison has passed into the blood, it will still be a most valuable means of preventing further absorption, particularly in the case of phosphorus, which causes so much local irritation and is so difficult of removal, owing to its insolubility.

Doubtless further experiments will be made, bearing on these points, but in the meantime it deserves a fair trial in these cases, and should have a place in our emergency equipments.

ONTARIO MEDICAL ASSOCIATION.

The annual meeting of this Association, which took place last month, was in every sense of the term a success. The President, Dr. McFarlane, was an ideal presiding officer; the committees did their work thoroughly; the attendance of members was unusually large and all seemed to enjoy and appreciate the brief respite from the arduous duties of practice. The papers were, on the whole, probably above the average and were freely discussed. It has been charged in the past that the discussion of papers occupied too small a portion

of the time of the Association, but the enforcing of the very excellent rule of limiting the length of papers read has largely corrected this difficulty. The benefit to be derived from attendance at such meetings is due, not so much to the listening to learned essays, but to the free interchange of opinion and hints of practical value to the busy practitioner.

As usual, a number of our American confrères were present and contributed to the success of the occasion.

It is much to be regretted that many practitioners throughout the Province still fail to take part in the meetings of their Association. Certainly it is time profitably and pleasantly spent, to interrupt thus briefly the routine and drudgery of professional work, to renew old friendships and to form new ones, and to aid or be aided by an interchange of clinical experiences. Socially, everything passed off nicely, the luncheon tendered to the members by the Toronto brethren being held in the cool and attractive Island club house of the Royal Canadian Yacht Club. The camera fiend was abroad and, as a result, we have had forwarded to us a very excellent souvenir photograph of the members.

CROTALUS HORRIDUS.—The homœopathic materia medica has received something new, which would appear to us to be popularly known as fluid extract of rattlesnake. If homœopathic principles be correct, this preparation should certainly commend itself as a specific for delirium tremens. The following appeared in the *Boston Med. and Surg. Journal*:—

The following description of the initial steps in the securing and preparing of the "mother tincture of *Crotalus Horridus*" receives the sanction of two homœopathic medical journals. A box of twenty-four large rattlesnakes was received by a museum proprietor in Rochester. Having provided a long hempen-cord, a bottle of ammonia and some whisky, "to be prepared for an emergency," the owner, known as "Rattlesnake Pete," unfastened the lid of the box and, as a large snake darted out, seized it by the neck and carried it to a table, while the long lithe body coiled round his arm and the rattles were "singing away like grasshoppers."

Now comes the interesting part of the performance. A piece of common window-glass was placed near the snake's open mouth, and the rattler struck his wicked-looking fangs, which were nearly an inch in length, against the glass, a thin stream of yellowish-looking liquid spurting upon it at each stroke. "Oh, he's full of it," said Pete. "There's poison enough right there to kill twenty men." While he spoke he walked toward the den, and giving the snake a quick twist, released him. The poison on the glass was absorbed with sugar of milk, scraped into a bottle and carefully sealed. The poison thus obtained is sent to certain London homœopathic physicians, who use it in their practice as a medicine for diphtheria and other diseases of a similar nature. The poison is supposed to be very valuable. The process just described was repeated with snake after snake, until all in the box were transferred to the den. After the first three or four were taken out, Pete plunged his hand among the mass of wrigglers with seeming impunity, dragging out his next victim with a quick but certain motion. "These fellows will give up their poison more readily tomorrow; they are a little sluggish on account of having been kept in such close quarters for the past forty-eight hours," said Pete, in response to the writer's query.

"Besides selling the poison, which I have told you about," added Pete, "when a snake dies, I try-out the fat of the reptile, and obtain from one and a-half to two ounces of a very penetrating oil, from a fair-sized snake. This oil is worth eight dollars per ounce, and is used as a specific for deafness."

THE MIGRATION OF THE OVUM TO THE TUBE.—Lode, *Archiv. für Gynäkologie; Univ. Med. Mag.*, has investigated this interesting subject by a series of experiments upon guinea-pigs. In one experiment he injected fine coal particles into the peritoneal cavity. The animal was killed thirty-six hours afterwards and the coal particles were detected in both tubes. In a guinea-pig four months old, in which the sexual organs were not yet fully developed, the particles were found only in the fimbria. In another series of experiments he used the ova of the *ascaris lumbricoides*, as they were larger than the coal particles. The injections were made

in the same way into the peritoneal cavity. The examinations of the guinea-pigs killed within a variable period of between thirty-six hours to seven days showed the presence of the ova in large numbers in about the middle portion of the tubes. In a few instances the ova had become glued together, forming a round mass fully the size of the natural ovum of the guinea-pig. This was found in the same situation in the tubal canal. The author draws the following conclusions from his investigations :

1. The cilia of the tube of a guinea-pig have the power of setting into motion bodies the size of the ovum of the guinea-pig, providing that the animal has arrived at sexual maturity.

2. The tube is enabled to take up ova not only from the ovary, but also from the free peritoneal cavity. Hence the old theory may be discarded, that it is necessary for the tube to be applied to the ovary in order to engage the ovum within its canal. The theory of transmigration—that is, the passage of the ovum from one ovary to the tube on the opposite side—receives new proof by the foregoing experiments.

3. The migration of the ovum is independent of the menstrual period, as none of the animals experimented upon showed any signs of rut, either while alive or at the post-mortem.

4. The migration is not dependent upon coitus.

5. The ovum travels along the first part of the tube much more rapidly than along the remaining part of the tube.

Lode attributes but a small rôle in the propulsion of the ovum to the peristaltic movements of the tube.

ACUTE POISONING WITH THERAPEUTIC DOSES OF CREOSOTE.—One frequently hears of patients taking very large doses of creosote without any untoward effects, but the following case reported by Dr. Zawadzki in the *Centralblatt für innere Medicin*, of May 5th, will perhaps make us a little more cautious in the use of this drug :—

A woman 42 years old was ordered creosote in doses of six drops three times a day, in milk. After she had taken three doses symptoms of poisoning showed themselves, including those of high irritation of the gastro-intestinal canal, anaesthesia, and partial paralysis of the soft palate and of the vocal bands, persistent burning in the

mucous membrane of the mouth and pharynx, albuminuria, signs of weakness of the heart, and especially exhalation of the odor of creosote from the mouth. Death took place in the course of four days, and the author thinks it was owing to an idiosyncrasy that made the patient abnormally sensitive to creosote. He expresses the opinion that we should avoid using creosote pure or in strong solutions, and especially that creosote should not be ordered to be taken in milk, since it is insoluble in milk and, when so prescribed, acts as if it were undiluted. Moreover, he thinks that not more than one or two drops at a dose should be ordered to begin with, and that this dose should be increased gradually.

RETENTION OF GUM ELASTIC BOUGIE MORE THAN ELEVEN MONTHS IN THE UTERUS.—The following most interesting case was reported in the June 2nd number of the *British Medical Journal*, by Alfred Sykes-Ward, M.D. On October 15th, 1893, Miss H. consulted me about a sinus, situated over the sacrum, which had been discharging for six months. I arranged to give ether, and lay the sinus freely open and scrape the cavity, which at the time of the operation was found to lead down to the bone. The day after operation my attention was called by the patient to a purulent discharge which came from the vagina. On examination I felt a foreign body, part of which was in the vagina and the remainder in the uterus. The vaginal portion was bent round, and rested on the posterior wall. With considerable difficulty it was removed by the finger, and found to be a piece of gum elastic bougie measuring $5\frac{1}{2}$ ins. There was no evidence of perimetritic inflammation or implication of neighboring viscera. On questioning the patient, she admitted that it had been inserted by a woman who is now undergoing penal servitude for procuring abortion in another case. The bougie was inserted on November 3rd, 1892. She miscarried two days later, and had suffered from pain in the back and purulent discharge from the vagina from that time up to April, 1893, when the sinus began to discharge. After the removal the patient did well, and was able to return to her occupation in a fortnight. The points which seem to me to be noteworthy are, first, the retention of the bougie after the miscarriage had taken place ;

secondly, the comparatively slight mischief that resulted from the long residence of the bougie.

SCARLET RASH AFTER ENEMATA.—C. W. Suckling, M. D., reports cases of this nature in the *British Med. Jour.*, as follows: The occasional occurrence of a bright scarlet rash after injections of warm water into the bowel should be borne in mind. The rash appears in about two hours after the injection, and lasts about twenty-four hours. It covers the whole of the body and limbs, and is especially marked on the face. In rare cases it is accompanied with sore throat and slight fever. The rash is almost exactly like that of scarlet fever, and may easily be diagnosed as such, especially if a sore throat is also present. It occurs more commonly in children than in adults, and is occasionally distinctly urticarial. It is due to toxæmia caused by absorption of fæcal matter liquefied by the injection of a large quantity of warm fluid into the rectum. In all cases of supposed scarlet fever it will be well to exclude the possibility of the rash being due to an aperient enema.

I have lately met with two well-marked illustrations of this toxæmic rash. Case 1 was that of my own son, aged 11. I was told that a scarlet rash had come out on him. I found that he was covered with a bright scarlet rash, but there was no sore throat, no fever, and no increase in the pulse rate. A soap and water enema had been used about two hours before the rash was noticed. I could not diagnose the case until thinking it over I remembered making a note on rashes after enemata. On reference, I find the note was made from a very interesting paper by Dr. Burford, on "A Mild Form of Septic Toxæmia Occurring after Enemata." The rash disappeared in about twenty-four hours, and the boy was quite well. Case 2 I met with at the Queen's Hospital. A little girl was to be operated upon, but just before the operation a scarlet rash was observed on the child, and I was asked to see her. On inquiry I found that a soap and water enema had been used that morning. There was no sore throat or fever, and the rash shortly disappeared.

PALPATION OF THE VERMIFORM APPENDIX.—George M. Edebohl, M.D., of New York City, advises, *International Med. Magazine*, that pal-

pation of the vermiform appendix be practised by the fingers of one hand only. These fingers must carry the anterior abdominal wall down before them until the firm resistance of the posterior abdominal wall is encountered. As the fingers, flatly applied, now pass over the right inguinal region from the umbilicus outward to the right anterior superior spine of the ilium, it is absolutely essential that the posterior abdominal wall be distinctly felt along the whole route traversed. As the organs, and among them the vermiform appendix pass in review, as it were, by gliding in succession between the fingers and the posterior abdominal wall, the touch soon learns to distinguish between them, and to recognize the appendix. After the appendix is detected, it is well to pass the finger over it, backward and forward, a number of times in succession; a more correct impression of its size, outline, etc., is thus obtained. The patient's position is dorsal, with the legs flexed upon the thighs, and the thighs upon the abdomen, so that complete relaxation of the abdominal walls is secured. The author considers the iliac arteries as helpful, because their pulsation indicates the posterior abdominal wall, and because the normal appendix is very constantly found about a finger's breadth outside of the artery. He also considers the McBurney point as indicating the origin of the appendix, and says that in most cases the appendix vermiformis may be palpated in health with ease and with about equal facility in the two sexes. In one of the cases reported the patient was so obese that the appendix could not be felt.

SECONDARY FEVER IN SCARLATINA WITHOUT LOCAL COMPLICATIONS.—Dr. E. Wearne Clarke, *Quarterly Medical Journal for Yorkshire and Adjoining Counties*; *N. Y. Med. Jour.*; relates the following interesting case of a little girl, seven years old, who was attacked with scarlet fever of moderate severity presenting at the outset the ordinary features. The temperature rose rapidly to 104.2°, the rash was generalized and tolerably profuse, and the sore throat was of very moderate intensity. There was a certain amount of mild delirium at night. The rash began to fade on the fourth day of observation and simultaneously the temperature fell to 100.8°. Two days later it rose again rapidly to 102.8°, and remained elevated for

ten days, ranging between 100° and 101° in the morning and between 102° and 102.8° in the evening most of that time, the maximum being usually attained at or soon after six o'clock in the afternoon. On the seventh day of this renewed fever, at 5.55 p. m., when the temperature was 101.8° and apparently tending toward the usual evening rise, five grains of antipyrine were given and a little later a cold pack was administered. At ten o'clock the temperature was 100.8° and at four o'clock in the morning it was 92.2°. By 1.15 p. m., however, it had risen to 101°, and at 6 p. m. it was 100.8°. The next morning it was 99.4°, and rose to 100.8° in the evening. A like rise occurred on the following evening, and after that there was a fall to 98°, with never again any elevation. All this time desquamation was proceeding rapidly, and no local complication that could account for the rise of temperature was observed. In spite of the fever, the child's general condition was good; the urine was abundant throughout and contained no albumin. The subsequent progress of the case was favorable. Dr. Clarke is inclined to think, with Bouveret, that in such cases the continuance of fever is due to the action of a toxine of scarlatinal origin, probably producing a disturbance of the nervous centers.

IS CANCER CONTAGIOUS?—W. Roger Williams writes on this subject in the *British Medical Journal* of May 26th, as follows:

As an example of the alleged epidemic occurrence of cancer, Fiessinger has adduced the following group of cases: In a certain village a woman died of cancer of the breast, and within a comparatively short space of time two other women, lodging in the same house, died also of cancer—one of the rectum, and the other of the vulva. After a certain time two neighbors also died, one of cancer of the stomach, the other of sarcoma of the leg. On the strength of some exceptional coincidences of this kind, without any other requisite data, the exaggerated conclusion has been drawn that cancer is an epidemic disease, and such groups of cases have been styled cancer epidemics. If the alleged epidemiology of cancer has no surer foundation than this to rest on, the less said about it the better. It will be time enough to entertain such surmises when the cancer microbe has been discovered. What to my

mind completely negatives these assertions is the significant fact that in the crowded cancer wards of the Middlesex Hospital during the last twenty years, not a single instance is known in which a sister, probationer, nurse, ward servant, surgeon, student, or any one engaged in attendance on the cancer patients, has ever subsequently developed the disease.

The question of the prevalence of cancer in Normandy has lately been investigated by a committee of thirty-five local practitioners, and their conclusion is, that although the disease is undoubtedly unduly prevalent in certain remote hamlets—probably in consequence of heredity—yet when the whole of Normandy is taken into consideration, cancer is no more prevalent there than elsewhere in France.

In this connection we ought to bear in mind that many other diseases besides cancer—deaf-mutism for instance—present similar geographical and topographical variations.

LIGHTNING AND THE TELEPHONE.—Robinson, *Annals of Oph. and Otol.*, January, 1893, reports a case of functional deafness and destruction of the membrana tympani caused by an electric shock while using the telephone as follows: A man, aged forty-five years, had the receiver of a telephone to his ear when a flash of lightning appeared, and he fell unconscious to the floor, remaining so four minutes. On regaining consciousness he had very severe pain in the left ear and left face, left breast, arm, and leg. The intensity of the pain diminished in four hours. The senses of taste and smell were impaired. Field and acuity of vision normal. The left membrana tympani was almost totally destroyed, the edges of the remainder being ragged, uneven, and congested. There was no discharge, but the mucous membrane of the middle ear was swollen. Hearing for the watch = 0. A C tuning fork was heard half an inch by aerial, and less well by bone conduction. Two months later he began to regain his hearing, and the membrana tympani was being rapidly restored. Thirteen months after the accident the condition of the ear was almost entirely normal.

STERILIZATION OF HYPODERMIC SOLUTIONS.—D. Marinucci, *Druggists Cir. and Chem. Gaz.*,

has found large numbers of living germs, some of a harmful nature, in freshly-prepared hypodermic solutions of strychnine sulphate, morphine hydrochlorate, atropine sulphate, eserine, etc. Sterilization by heat did not affect the therapeutic value of strychnine and quinine, but partly checked the action of morphine and atropine. Eserine and atropine solutions are said to be best prepared with a solution of corrosive sublimate (1 in 1000), which renders them aseptic without modifying their therapeutic properties. It is suggested that all such solutions should be renewed every fourteen days.

HOME MADE BEEF POWDER.—Dr. Wm. R. Huggard, *Davos. Platz. Switz.*, gives the following method of preparing this useful article: Most, if not all, of the beef powders in the market smell and taste of the chemist's shop, and are not readily taken by an invalid whose palate requires to be coaxed. A happy idea struck me several months ago that beef powder might without difficulty be prepared fresh and on a small scale by any ordinary cook. The experiment was made, and the result was satisfactory beyond expectation. Beef powder made at home is appetizing, has a delicate aroma and flavor, and can be taken with pleasure by invalids who turn with aversion from ordinary food. If a little pepsin be taken at the same time, it is digested even when the ordinary peptonized foods are not retained. The mode of preparation is simple. Lean beef is cut into small pieces; these are put into boiling fat, dripping, or butter for a couple of minutes until the surface is browned. They are then removed from the fat and placed on a strainer for a few moments. Afterwards they are placed in a mincing machine. The resulting mince is placed in a slow oven and dried. The drying process may take from five to twenty-four hours, or even longer, according to the heat employed. When thoroughly dried, the meat is quite crisp, and can be ground in a coffee mill that has not been used for any other purpose. In the drying process the meat loses a trifle more than four-fifths of its weight. This beef powder can be taken in various ways; with hot water or soup, with mashed potatoes, with bread and butter in a sandwich, or with a little pepsin in a starch water. I have given this home-made beef powder with such excellent effect in several cases where there

was much difficulty with food that I think my professional brethren may also find it useful.

IN THE TREATMENT OF LITHÆMIA, according to Dr. Da Costa, *N.Y. Med. Record*, the main factor is regulation of the diet. The food ought to be mainly vegetable. Green vegetables (especially asparagus), fresh fruits, stale or toasted bread, white meat of poultry and fish, should constitute the chief items. An excess of carbohydrates, especially sugar, should be avoided. The only drink to be allowed is water, and sufficient quantities should be taken to flush the kidneys. Mineral waters may be ordered to accomplish the same purpose. Alcohol should be positively excluded. Exercise in the open air is also an important part of the treatment. But little drug treatment is required. Saline laxatives are very useful. A combination of lithium carbonate (2 gr.), with extract of nux vomica ($\frac{1}{6}$ gr.), given after meals is of special value. In attacks of lithæmic migraine a few doses of a mineral acid, it is claimed, will often cause the symptoms to disappear. Other authorities advise a diametrically opposite diet to that cited above.

PERMANENT MOUNTS OF URINARY DEPOSITS.—Von Frisch states, *Atlanta Med. and Surg. Jour.*, that by the following method he is able to mount and preserve, microscopically, specimens of urinary deposits which have kept well for three years. The medium he employs is a glycerin jelly of one part of gelatin, four parts of glycerin, and two parts of distilled water. A drop of the deposit is placed on the glass cover and partially dried, a drop of the gelatin solution is placed on a warm slide, and the cover glass with the deposit carefully placed over it. The method is equally available for crystalline or organized sediments; for the latter, however, the author recommends that the gelatin should be colored with fuschin, when the organized elements are gradually stained by the dye.

ELECTRICAL TREATMENT OF OBESITY.—*Brit. Med. Jour.* Imbert de la Touche has obtained favorable results from electrical treatment in certain cases of obesity in which the symptom had developed as part of a general disorder of nutrition, or neurasthenic state in women. Regulation

of the diet, as usually prescribed for the diminution of stoutness, made the patients worse. Five cases are reported. The method employed was by insulation and the statical charge, daily or three times a week. Excellent results followed, in every case the symptoms of debility disappeared, the abnormal stoutness disappearing also. The author writes enthusiastically of the efficacy of this mode of treatment.

THE TREATMENT OF LEAD POISONING WITH MONOSULPHITE OF SODIUM.—The following appeared in the *N. Y. Med. Record*:—M. Perou states that the administration of 40 centigrammes a day of monosulphite of sodium gives rapid relief in lead colic. He states that the elimination of the metal is much hastened by this treatment, and that the sulphite is an efficient prophylactic agent. The employment of the drug is, he says, devoid of danger.

THE EXPERIMENTAL PRODUCTION OF MONSTROSITIES.—The *Gazette Médicale de Paris* for May 5th stated that, at a recent meeting of the *Société de Biologie*, M. Féré reported that by injecting various microbic toxins into the whites of hens' eggs in process of incubation, he had succeeded in producing monstrosities in 58.33 per cent. of the eggs, while in eggs not interfered with the percentage was only four.

CLEMEN'S SOLUTION.—The following, *N. Y. Med. Record*, is the mode of preparation of the liquor arsenici bromatus used in the treatment of diabetes mellitus: Carbomate of potassium and arsenous acid, each one drachm; distilled water, ten ounces; boil until a clear solution is formed, and when cold add bromine, two drachms, and water twelve ounces. This is allowed to stand until the color disappears, when it is ready for use. The dose is from one to five drops once or twice a day.

THE DOSE OF EXALGINE.—At, *N. Y. Med. Journal*, a recent meeting of the *Paris Académie de Médecine*, reported in the *Mercredi médical*, M. Dujardin-Beaumetz stated in reply to a question that great prudence should be exercised in the administration of exalgine, and that it was quite wise to give it in divided doses, each dose not exceeding four grains.

PERSONAL.—Drs. J. L. Davison, W. Britton, A. McPhedran and Gerald O'Reilly sailed, per steamer Oregon, a few days ago, for the old country, where they will spend the summer months. They intend combining business with pleasure, and will, we trust, return in the fall, with the best of health and all the latest ideas of interest and practical use to the profession.

THE PECUNIARY LOSS FROM PHTHISIS alone, for every million children born, is estimated to be £14,499.40.

Books and Pamphlets.

ESSENTIALS OF NERVOUS DISEASES AND INSANITY: their Symptoms and Treatment. A Manual for Students and Practitioners. By John C. Shaw, M.D., Clinical Professor of Diseases of the Mind and Nervous System, Long Island College Hospital Medical School, etc. Second Edition, revised. Forty-eight original illustrations, mostly selected from the author's private practice. Philadelphia: W. B. Saunders, 1894. Pp. x-17.

A first rate little work for the student to use in conjunction with his clinical work.

ESSENTIALS OF PRACTICE OF PHARMACY. Arranged in the form of questions and answers, prepared specially for pharmaceutical students. Second edition, revised by Lucius C. Sayre, Ph.G., Professor of Pharmacy and Materia Medica, University of Kansas. Philadelphia: W. P. Saunders, 1894. Price \$1.00.

Invaluable to students preparing for examination.

A MANUAL OF THERAPEUTICS. By A. A. Stevens, A.M., M.D. Philadelphia: W. B. Saunders.

This book of 435 pages has been specially prepared for students in modern therapeutics. It is not intended as exhaustive, but is an excellent epitome of the subject as considered in the light of its modern development, and will undoubtedly be of use to the busy practitioner as well. The article on "Incompatibility in Prescriptions," is especially timely and useful. The "Table of Doses," with which it concludes, is a commendable innovation.