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THE

# CANADIAN

# JOURNAL OF MEDICAL SCIENCE:

## A MONTHLY JOURNAL

OF

## British and Foreign Medical Science, Criticism and News.


U. OGDEN, M.D., - - - - EDITOR.

R. ZIMMERMAN, M.D., L.R.C.P., London, - CORRESPONDING EDITOR.


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# CONTENTS.

# CONTRIBUTORS TO VOLUME V.

T. W. POOLE, M.D., LINDSAY.
T. W. MILLS, M.D., HAMILTON.
C. K. CLARKE, M.D., TORONTO.
J. E. GRAHAM, M.D., "
G. W. EMERY, M.D., MINNEAPOLIS, U.S.
T. J. W. BURGESS, M.B., LONDON.
W. CANNIFF, M.D., TORONTO.
H. T. MACHELL, M.B., TORONTO.
H. WATT, M.D., MEAFORD.
W. J. WILSON, M.B., STOUFFVILLE.
W. T. AIKINS, M.D., TORONTO.
J. D. MACDONALD, HAMILTON.

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TORONTO, JANUARY, 1880.

## Selections: Medicine.

### RENAL INADEQUACY.

Dr. Andrew Clark, at a meeting of the London Medical Society, read a paper "On Renal Inadequacy." He began by remarking that he was often painfully struck by the great number of people suffering from ill-health of which no sufficient explanation could be given. There was, he said, no doubt that the progress of knowledge was steadily lessening this ignorance, and explaining, by the discovery of dynamical or statical conditions hitherto overlooked, cases supposed to have their origin in the distant ancestry of the patient, and believed to be practically inexplicable. Some of these cases, he believed, took their rise in a feeble and disorderly nervous system, some in a vicious digestion, some in an imperfectly acting skin, some in unsuitable conditions of life and work, some in abuse of tea, coffee, tobacco, alcohol, and other narcotics, and some in the derangement of the chemical changes which accompany and determine assimilation and disassimilation. There remained, he thought, numbers sufficient to demand and reward inquiry. Many of these cases of ill-health found their explanation in deficient excretion. As examples of this, he mentioned cases of anæmia and chlorosis due to fæcal poisoning, and curable by purgatives. But a far larger number, he believed, were due to a deficient excretion of urinary solids. "By renal inadequacy I mean that state of kidney in which it is unable, without material diminution of quantity, to produce a urine containing the average amount of solids and of a specific gravity greater than 1014." The deficiency of solids chiefly affects the urea and uric acid. The urine was pale, almost invariably free from albumen, and deposited no casts. He did not profess to determine what was the exact pathological state of the kidney; but he conjectured that it was one of slight withering and induration, just as sometimes the skin is found withered, hard, and incapable of producing a true unctuous sweat. This renal inadequacy had, so far as he could see, no characteristic symptoms, and we found it out only by searching for a cause which should be found adequate to the explanation of the patient's trouble. The symptoms and signs most commonly associated with renal inadequacy were flatulent dyspepsia; palpitation, with a very feeble and interrupted capillary circulation; a dry, shiny, waxy skin; numbness, tingling, cramps and pains in the limbs, occasional flushes, worry of brain, and general nervousness; sometimes thickening of the terminal joints of the fingers, and sometimes, but rarely, evidences of gout. One knew in a given case that these symptoms were due to renal inadequacy, not merely because there was a grave deficiency in the excretion of urinary solids, but because whatever diminished that secretion, or whatever added to the amount of solids to be excreted, invariably within a short time aggravated the patient's sufferings. Three things were of great importance in these subjects. They are exceedingly vulnerable; they repair very slowly the damage done by accident or disease; they bear very badly the shock, however slight, of surgical operations—a fact mentioned by Sir James Paget (Clin. Lectures, p. 44). As to prognosis, this state seemed capable of indef-

nite prolongation without serious secondary injury to the organism. Under unfavourable circumstances and bad management death might occur from some local inflammation, from cerebral or other hæmorrhage, or from the so-called pyæmic fever springing unexpectedly out of some, perhaps trifling, surgical operation. He then enumerated what he considered the special characters and appearance of patients who had been the subject of renal inadequacy for over four or five years: —"They have at least a marked and striking physiognomy; they increase in flesh; they become puffy without being distinctly œdematous; the skin becomes drier, more shiny, and yellower; the features swollen almost to distension; the pupils are dilated; the lips and cheeks of a bluish red; the articulation deliberate and somewhat difficult, and the whole intellectual tone and manner subdued and slow." From one side the physiognomy was like that of pernicious anæmia, from another like of chronic Bright's disease, and yet it seemed distinct from both. As to treatment, much might be done by good management, by which he meant the adjusting of the quantity and quality of the food to the diminished excrementitious activity, the withholding of such agents as directly lessen the secretory power of the kidney, aiding the kidney in its work by making the supplementary excretory organs fulfil that part of the work which the kidney was unable to do, and generally by placing the patient in those conditions which would give the organism the greatest power for resisting the inroads of disorder, and for making sufficient compensation when complete repair was unattainable. The tepid bath, followed by vigorous friction, the use of warm clothing, and the avoidance of passing exposure to cold and damp, with gentle exercise daily in the open air, were indicated. The diet should be light; stimulants should be avoided except to the extent of one glass of claret or other light wine, twice a day. The medicines he had found most useful were small doses of arsenic with reduced iron at meals, and an occasional mercurial alterative. If digestion was disturbed, he discontinued the iron and arsenic, giving the patient bitters with alkalies between meals, and a mercurial alterative every third night for two or three times. He concluded by narrating a case which he first saw some years ago. By a strict adherence to a limited dietary, and by the use of purgatives and diaphoretics this patient improved so much as to consider himself quite well; whereas, when he was taking food and wine every two hours, it seemed that the more he took the worse he became. A very remarkable fact about this case was that as his supplies of food and wine were reduced, the patient's urine steadily rose in density from 1003 up to a very fair standard; and in three weeks he left town declaring himself quite well. When seen six months ago this patient seemed and declared himself to be quite well, his only complaint being that he could not relax his dietary without being ill.—Dr. C. T. Williams said these cases were generally treated as dyspeptics. He asked whether weight was gained or lost under the restricted diet, whether there was corpuscular deficiency or excess in the blood, or any signs of anæmia.—Dr. Gilbart Smith asked whether it was due to renal defect or blood change. Did the kidneys refuse the blood, or did the blood refuse to go to the kidneys? Had these organs been examined after death?—Dr. Routh said there was no proof that the author's dictum was correct, and inclined to believe the ailment due to defective assimilation, and therefore lessened amount of salts in blood and urine, rather than to renal inadequacy.—Dr. Dowse had seen several cases similar to those described by Dr. Clark, but had never examined the kidneys after death. He did not for a moment doubt the existence of such a condition as renal inadequacy.—Dr. Symes Thompson agreed that the kidneys must be at fault in these cases. He had not known that a diminished diet could increase the specific gravity of urine.—Dr. Ewart wished that we could detect the condition of renal inadequacy before the cases had gone so far as that only a rigid diet would keep them in health.—Dr. Andrew Clark replied, urging the facts that proved the existence of such a state as renal inadequacy; that retention of excreta leads to disease, and that in a case he had at the London Hospital nitrogenous diet

increased the defective action of the kidneys. Some of the patients gained weight, others lost flesh on the strict *regime*. The blood did not appear abnormal. Apparently normal skin sometimes refused to perspire normally. Why should not a kidney which refused to act yet show no apparent change?—*Lancet*.

## DIABETIC COMA—ACETONŒMIA.

BY BALTHAZER FOSTER, M.D., F.R.C.P.

Dr. Balthazer Foster, Professor of Medicine in Queen's College, Birmingham, regards acetone as the cause of the dyspnœa and coma, which sometimes occur in saccharine diabetes. He puts his views before the profession in an article in the *British Medical Journal*, Jan. 19, 1878. His statement of the phenomena presents nothing specially noteworthy. In a boy, two days after entering the hospital, there were restlessness, anxious countenance, slight blueness. Inspiration was deep, ample, chest filling. He respired thirty-two times a minute, but the large quantities of air passing into and out of the lungs, seemed to have no effect in satisfying his craving for it. The chest was everywhere resonant; the respiration harsh and loud. His breath presented the ordinary diabetic odor. Pulse small, weak, 136; temperature, 97. He was mentally dull, but when roused answered correctly. These symptoms commenced with vomiting, which had been repeated with sharp epigastric pain and rapid respiration. Before death he became comatose and cyanotic, with rapid breathing. On *postmortem* the blood was found pale and cream-like, resembling grumous pus. On exposure to the air it became pinker and brighter in colour, assuming a magenta-like tinge. It contained a small quantity of sugar; and, microscopically, the creamy condition appeared due to a large quantity of molecular matter, resembling fat, but which did not dissolve in ether. While reflecting on these appearances of the blood, Dr. F. came on a reference to the views of Petters and Kaulich, with regard to the development of acetone in that fluid, and he determined to test the effects of this substance on healthy blood.

With the ready assistance of Dr. Sandby, it was ascertained that when acetone was added to the blood it became paler and creamy-looking; and, on exposure to the air, after a time, presented the usual pinkish colouration of diabetic blood. Under the microscope the blood corpuscles were seen to break down into granular *debris*, reproducing exactly the state observed in the blood of the patient. Roughly examined it appeared to contain a good deal of fat—but in neither the case of the boy, nor in blood to which acetone had been added, was this appearance due to the presence of fatty matter. These appearances were not produced by adding to fresh blood chloroform, ether or alcohol. The case, consequently, was explained by these results. Assuming that acetone was developed in the boy's system, its destructive effects on the blood would be amply sufficient to account for the great dyspnœa and cyanosis, notwithstanding the full and frequent inflation of the lungs; for the blood cells were so destroyed that they no longer were able to fix and absorb the oxygen drawn into the lungs by the vigorous respiratory efforts.

Dr. Foster next proceeds to sketch some of the observations made on this subject. From these it appears that acetone is developed in the system of diabetics—this was not peculiar to diabetes, but was met with in chronic affections of the stomach, and accounted for the depression of the whole nervous system met with in such cases. The source of acetone was assumed to be alcoholic and acetic fermentations of the grape sugar in the stomach. It was believed that inasmuch as acetone was found after death in the blood, it might be formed in that fluid, as well as in solid organs. The urine of confirmed diabetics contains it.

Finally, Kussmaul, in his experiments on animals, found acetone to be an anesthetic less powerful than ether or chloroform, and in its effects more resembling alcohol. It produces great muscular weakness, quick pulse; deep, slow breathing; and in large quantities brings on stupefaction. In man, before the coma comes on, there is partial unconsciousness, broken by a happy delirium, in which the patient laughs and jokes when roused, remind-

ing one very much of the effects of alcohol. Dr. Foster summarizes his results thus:

"1. That acetone has been found in the breath, blood, urine, &c., of patients who have died of diabetic coma.

"2. That grape sugar may be converted in the stomach by alcoholic and acetic fermentation into acetone.

"3. That the changes in the blood observed after death from diabetic coma can be artificially produced by the artificial addition of acetone.

"4. That the administration of acetone in large quantities to animals produces similar symptoms to those observed in diabetic coma."

The history of a case terminating fatally is given, and Dr. Foster asks the question, Must the ending of diabetic dyspnœa and coma always be by death? He answers that he thinks not. He further expresses the belief that many cases do reach a favourable termination. Many of the milder cases pass unnoticed, and in many instances the slighter effects of acetone are put down to temporary brain disturbance. In other instances the symptoms, though less grave than in the more severe cases recorded, are yet sufficiently dangerous to cause much anxiety, and are really due to acetone; but the process is arrested, either naturally or by treatment, and life is saved.

Dr. Foster proposes to treat thoracic symptoms and coma in the diabetic with such remedies as have been found serviceable in the particular case (opium was continued in the one referred to) and carbolic acid—the former, it was hoped, would continue to lessen the quantity of diabetic sugar formed, and it was hoped the carbolic acid would prevent the conversion of the sugar into acetone. Two grains of this acid were given in a drink every hour at first, aud subsequently every two hours.

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Dr. G. E. Rindfleisch has calculated the rapidity of the reparation of the blood after the menstrual loss, and finds it to be at the rate of 175 millions of red globules per minute!

## THE PRESENT STATE OF THERAPEUTICS.

* * * * * *

No fact is more evident than that the highest order of physicians and surgeons are not men remarkable for their knowledge of microscopy, of experimental physiology, and the other branches of theoretical medical science, and, conversely, that the microscopists and pure physiologists are not remarkable as physicians, and, indeed, cannot be. The attempt to pervert the proper purpose of medical schools, and to give a merely science aspect to medical teaching is a fashion of the time, which, if it gain more adherents, is likely to do serious mischief to the cause of medical education. For young men, allured by the glitter of scientific work, will neglect the important and really more difficult attainments of true professional studies.

No wonder that, at a recent meeting (last month) of the Paris Academy of Medicine, there were loud demands for reform. No wonder that Dr. Andrew Clark, in that recent iconoclastic address from which I have just quoted, cries out that therapeutics, "the highest department of our art, and one of its chief ends, is in a backward and unsatisfactory condition." He attributes this unhappy state of things to several causes; but the first is, that materia medica, not therapeutics, is taught in the schools, and that there is "no physician of experience and authority who teaches the subject of therapeutics."

Where must the reformation begin? Obviously the reformation is demanded in the direction which I have indicated, and which Dr. Clark so vehemently emphasizes.

We must begin by stripping the materia medica of its useless knowledge. We must relegate to the botanist, to the chemist, to the pharmacist, the subject matters belonging to them, and retain those things having connection with the study and work of the physician. I can best illustrate this by an example selected from the vegetable kingdom: let it be nux vomica. We have first the names—botanical and chemical. Then follows the source and botanical description, which is Sanscrit to the

average student, and knowledge without any use to the practitioner as such. Next comes the pharmaceutical preparations, and a description of the mode of preparing the tincture and the extracts, and an elaborate account of the separation of the alkaloids—a complexus of chemical and pharmaceutical knowledge of great utility, indispensible, indeed, to the pharmacuetist, but useless to the physician, who is not engaged in the business of a manufacturing chemist, and who cannot acquire this knowledge unless at the expense of his proper professional education. The best students who make the attempt to master the details of materia medica, acquire but a vague notion of it, and drop the study as soon as possible, except the few who expect to combine the business of pharmacy with the practice of medicine—a union which always results unhappily, and is not to be approved.

Dr. Clark complains in his energetic way that our works in this department consist of materia medica teaching largely, whereas they ought to be devoted to therapeutics only. This is an extreme view to which I must decidedly express my dissent. There is certain knowledge of pharmacy and chemistry which is necessary to accurate prescribing, and which must be taught if we would use our therapeutical knowledge intelligently. We must know the names of the drug, the forms and preparations in which they are compounded, the active constituents, the doses, the antidotes chemical and physiological, but especially must we have full and accurate information in regard to the effects of the remedies and their uses in the treatment of diseases. All of this knowledge is immediately applicable to the requirements of the physician, and no part of it can be omitted without injury. I hold that the actions and uses of remedies is the point on which the greatest stress should be laid, and no information, empirical or physiological, should be neglected. Let the student have the minutest information from all possible sources of the physiological powers and capabilities of a drug, its behaviour as influenced by idiosyncrasy and dose, its applications in the treatment of disease, the fallacies which affect a proper estimate of its powers, the special conditions in which it is useful, why it should be preferred to another remedy of the same class, and in fact any information in regard to it which may facilitate the physician's use of his armamentarium. The artizan is taught the name of the tool, the range of its uses, the mode of handling it under special circumstances; but he is not expected to acquire the mineralogy of iron and the chemistry of steel—subjects concerned with its original construction.—*Dr. Bartholow's opening address at Jefferson Medical College.*

## THE ACTION AND USES OF HYOSCYAMINE.

BY ENGLEDUE PRIDEAUX, L.R.C.P. LOND., &C.

* * * * *

In conclusion, as a summary of the results of the use of hyoscyamine in a considerable number of cases in this hospital, and from the cases reported by others, in regard to its advantages and disadvantages in the treatment of the various diseases of insanity, it appears—

1. That in most cases of mania, or where there exists great excitement of an aggressive and destructive character or rapidity of movement and speech, the use of the drug is the most effectual and rapid means of exercising that form of restraint which has been termed "chemical restraint."

2. That in cases of acute mania it will produce sleep and quietude when all other drugs have failed, and is one of the most rapid and reliable narcotics we possess.

3. That in the treatment of the epileptic status in epileptic mania it diminishes the number, frequency, and severity of the attacks, especially if its administration be extended over some time.

4. That in delusional insanity, especially the mania of suspicion and other forms of mania where the delusions are varying and changeable, it has a decided action in producing such an altered condition of the cerebral status that a condition which has been termed "physiological mania" results, and this so eclipses the former delusions and hallucinations that they are forgotten and the mind becomes clear; while, if the subjection to the influence of the

drug be continued, it ultimately leads, under favorable circumstances, to a permanent condition of quiescence and restoration to a healthy state of mind.

5. That in chronic dementia, associated with destructive tendencies, bad habits, and sleeplessness, the condition of the patient much improves after a continued course of small doses of the drug.

The disadvantages that have occurred in its use, and which have to be guarded against, are :—The dryness of the tongue and pharynx that occurs, especially after a prolonged administration. This has been thought to contra-indicate its use in cases of artificial feeding, but provided the tube be dipped into an oily liquid before passing I have not found it any inconvenience. The attacks of vomiting that have occurred in some cases, after an administration of some weeks, necessarily lead to a discontinuance of the drug. Vomiting occasionally occurs after one dose, even a small one, and in two cases, mentioned by Dr. Lawson, hæmatemesis took place. Where rapid and sudden action of the drug is feared in feeble cases, it is better to administer it with the food.–*Lancet.*

## SIMPLE DILATATION OF THE STOMACH AND ITS TREATMENT.

BY T. CLIFFORD ALLBUTT, M.D., AND E. H. JACOB, M.B., LEEDS.

Dr. Clifford Allbutt urged that simple dilatation of the stomach apart from pyloric obstruction is not rare, and yet is not generally recognised by the profession in England. His attention was drawn first to the subject by Kussmaul, in a paper published in 1869, and since that time he had had frequent opportunites of verifying the truth of Kussmaul's statements. Niemeyer, Leube, aud others had published similar statements at subsequent dates. Among its chief causes, he referred to gluttonous eating, or the use of much slop or of aerated drinks acting upon the healthy stomach, and to the effects of ordinary ingesta upon the stomach weakened by anæmia or such debilitating deseases as phthisis, acute rheumatism, and the like. Deficiency of peptic secretion in the stomach, if neglected, may lead to the same result. Cases of ulcer or catarrh of the stomach do not readily lead to dilatation, owing to the intolerance of accumulating contents and to the early and frequent vomiting thus induced. The symptoms and physical signs of dilatation of the stomach were detailed somewhat fully. The absence of pyloric obstruction in many cases must be taken upon an inference drawn from all the circumstances, an inference not always a very certain one. Prognosis depends greatly upon such an inference, but treatment is not much affected by it. Treatment by regimen and certain drugs was touched upon ; but the author said that, as in dilatation of the bladder, the direct method was to be found in systematic catheterism. This method he had found difficult in private practice, but more easy in the hospital, and in this part of his subject he was greatly indebted to Dr. Jacob's aid. Dr. Jacob had treated several cases for him and his colleagues by means of the stomach-syphon, and these cases were reported and commented upon by Dr. Jacob. The instrument used, and the mode of its application, were described.

TREATMENT OF HEPATIC CALCULI.—Some very positive statements on this subject are made by Dr. T. H. Buckler, in the *Boston Medical and Surgical Journal.* Referring to Dr. T. G. Thomas's enumeration of the operation of cutting into the gall-bladder as one of the recent surgical triumphs, he asserts that such a procedure is unwarrantable. Cholesteric gall-stones can always be dissolved away by large doses of chloroform, especially if combined with succinate of iron. The latter agent also may alone accomplish the desired solution and effect a cure. In Dr. Buckler's last three cases, treated successfully, he gave ten drops of chloroform every four hours, and a teaspoonful of Stewart's hydrated succinate of the peroxide of iron half an hour after each meal. He has sometimes given a teaspoonful of chloroform every six hours without causing any bad symptoms to the patients, and with the result of a cure within a week. The succinate of iron contains, according to Dr. Buckler, more nascent, appropriable oxygen than any other known therapeutic agent, and is one of t

best of the ferruginous preparations apart from its solvent power on the gall-stones. It is better than nitric acids in affections of the liver. Chloroform, we are told, on being swallowed passes to the acini of the liver, then with the bile to the gall-bladder, where it dissolves the gall-stones with the inexorable certainty of mathematics. Dr. Buckler's experience with ether and with the various mineral waters has led him to consider them of no value in this trouble.—*N. Y. Medical Journal.*

THE BENZOATE OF SODA CURE OF CONSUMPTION.—In the *Wiener Medicinische Wochenschrift* (No. 39, 1879), it is stated that the newly-discovered miracle cure (*Wundermittel*) of tuberculosis has created intense interest in medical circles, and inhalations of benzoate of soda are now going on in every room of the hospital. Prof. Rokitansky, jun., is credited with the discovery. Dr. Max Schüller has made many successful experiments on animals with artificially produced tubercular inflammation of joints, and Rokitansky claims to have been equally successful in the cure of tubercle in man. Dr. Krockzak uses one part of benzoate of soda in a five per cent. solution twice daily, to the thousand of body weight, by means of a good atomizer, for seven weeks without interruption. Druggists can hardly supply the demand for benzoate of soda.

Gustave Vogel, on the changes of the pupil during the anæsthesia of chloroform, draws the following conclusions from his researches:

(1.) The pupil is at first dilated then contracted; when this contraction is well marked and rapid, anæsthesia is on the point of ceasing. In other cases the contraction only happens at this moment. A dilatation, when the anæsthesia is profound, indicates threatened asphyxia.

(2.) The globe of the eye is deviated in such a manner that the pupil looks upward: at times the cornea corresponds constantly with the middle of the palpebral slit; towards the end of the anæsthesia the globe presents a certain number of irregular movements.

In exhausted individuals, the pupil gives no other signs than the ditalation premonitory of asphyxia.—*Gaz des Hôp.*

## Surgery.

### TRAUMATIC DISLOCATION OF THE FIFTH CERVICAL VERTEBRA.

BY WM. J. MORTON, M.D., NEW YORK.

The following case came under my care as clinical assistant at Professor Hammond's clinic for Diseases of the Mind and Nervous System, and offers some points of general interest.

The patient, Tommy Baedor, a bright boy, twelve years old, was referred to the clinic on account of general paralysis of his arms and legs, and apparent contractions of the muscles of the left side of the neck. He gave the following account of himself: One week ago he was running very fast, chased by another boy, who, as he caught up with him, pushed him violently. He fell and struck the right side of his neck against the horizontal iron rod of a fence or railing. The shock was severe, and he could not speak for several minutes. He was helped up and home. His neck felt very sore and was "twisted" to one side. His aunt applied liniments, without, however, producing any relief. Upon trying to drink he found that he had a "lump" in his throat which hurt him very much when he swallowed, and he was obliged on this account to eat only soup and soft food. Moreover, he could not open his mouth wide. He tried to get a peach stone between his teeth, using it as a wedge to force the jaws apart, but could not get it fairly in. He was obliged to sleep on his right side. The next day he felt very weak, could not swallow without much pain, couldn't walk, nor get his mouth wide open. His aunt states that "his hands felt in a burning fever," while his body felt cool. During the remaining five days he was unable to use his arms and hands; they were "paralyzed, and had no feeling in them," —so much so, that, he says, he could not use them to pull his trousers on. He also felt very sleepy. He made many ineffectual attempts to get his neck straight. Finally, his aunt, who is a very dull sort of person, thought it time to have his case examined, and accordingly brought him to the clinic.

*Present appearence.*—As the boy entered, the first thought was of an extreme contraction of

the muscles of the left side; the head was pulled strongly over to the left and backward, while the chin pointed out to the right; so marked was this position that the head seemed to lie over upon the left shoulder—the left shoulder at the same time was elevated and held up toward the ear. The rigid appearance of his whole body was peculiar; he seemed to walk as though in fear that his head would topple off; when he turned, the rotation took place at the hips and not at the neck, or he rolled his eyes without moving the head. His arms also swung a little stiff and helplessly, and were flexed at the wrists. The rigidity of the shoulder and neck region was very marked. When asked what he complained of, he stated that he could not use his arms; that he had no feeling in them; that he couldn't walk well, and that it hurt him to swallow even fluids. Examination corroborated his statement in regard to paralysis and cutaneous anæsthesia, as well also as his inability to swallow water without evidences of pain. It caused pain also to produce forcible extension of the flexed wrists. Told to put out his tongue, he could not open his mouth more than half an inch, but the tongue came out straight. It was coated white on the right side, clean and red on the left. There was no discoverable paralysis of the muscles of the face or eyes. As regards the position of his head, the occiput seemed to sink downward and backward, and give to the chin an upward projection; the chin, as mentioned, projected over the median line to the right side. Between the base of the occiput and the seventh vertebra the outline of the spinal column seemed to hollow in, and the spinous processes to be secure. It was difficult to feel the spine of the fifth, and pressure over it gave pain on both sides, but particularly on the right. The head could be bent over to the left side moderately well, but could not be laid over on to the right shoulder in the slightest degree. In this direction it was perfectly immovable.

There was no evidence of a permanent contracture as in torticollis, nor of paralysis of the muscles of the right side. There was no crepitus at the seat of injury, and the fact that the deformity could not be in the least degree modified by lateral rotation seemed to justify the exclusion of a diagnosis of fracture, at least of an oblique process.

A diagnosis of dislocation of the inferior oblique process of the fifth cervical vetebra was made, and an attempt at reduction determined upon. I may say that Dr. Osborne, who by chance was present, concurred in this diagnosis.

Moderate extension was first tried, but to no purpose. Finally, taking the boy by the head and under each mastoid process, I lifted him gradually entirely clear off the floor and held him suspended, an assistant at the same time supporting my elbows. His body, with the right shoulder as a guide, was then rotated by Dr. Osborne, first very gently backward, *i. e.*, to the right (as the hands of a watch indicate), in order to disengage the oblique process, then more firmly forward, *i. e.*, to the left; the jar of the bone returning to its place was immediately felt both by Dr. Osborne and myself, though much modified, of course, by the weight of the patient's suspended body. The patient was immediately lowered so as to stand on his feet, and to our pleasure the head was quite straight, though still a very little bent over laterally to the left side, a condition due probably to its having been so long already in that position. But it was particularly noticed that the chin pointed straight again. The boy expressed his relief and satisfaction, and rotated his head freely to demonstrate that it was now in its right position. Given a glass of water he drank it off freely—a thing he had not been able to do for a week when sent home. At the end of two hours the head was quite straight. Sensation had not, however, returned to his arms and hands. He had at times a thrilling feeling in them, as if his "crazy bone" was being hit. Patient walked home.

Friday, July 25th.—When patient woke up he found he was unable to move except very gradually. For instance, he woke with his hands crossed and had to get his aunt to separate them. His feet were much swollen, as also his hands and wrists. He could barely hobble along, walking on the outer edge of his feet. His hands felt numb all day; he could not close his fingers nor hold any object in his hands; could move his thumbs best. Both

hands were alike. He was so helpless that he had to be put to bed; had no trouble of urination, but was constipated.

Saturday, July 26.—Felt much better; could use his arms and legs pretty well. The dorsum of the hands was much swollen; pulse, 84. A painful spot, like an enlarged gland, is felt in each groin, Bends head freely forward but not backward. Bends it well to his left side; but not to his right. Right cheek swollen; right side of tongue coated white—left, red; painful enlarged gland under right jaw; pupils normal. Spines of cervical vertebræ in line.

July 27th, Sunday.—Swelling has left his hands; movements improved; still holds his head very slightly crooked. Pulse, 65.

Monday, July 28th.—Head quite straight. Swelling of hands has disappeared, and sensation and motion have thoroughly returned to them. Still places the finger over the fifth cervical vetebra to indicate the region of a remaining sore spot in the neck. Pulse, 84.

Tuesday, July 29th.—Slept without pain in the neck for the first time since injury. Head carried perfectly straight. Patient apparently in all respects completely recovered.

September 29th.—Patient, up to this date, has remained as well as if no accident had ever happened.—*N. Y. Med. Record.*

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A NEW METHOD FOR ARRESTING HÆMORRHAGE WHEN AMPUTATING AT THE SHOULDER-JOINT.—In cases of amputation at the shoulder-joint that have come under my observation, I have noticed the chief difficulty of the operation to consist in controlling the hæmorrhage attending it, necessitating the aid of a quick and competent assistant. I have twice, in performing this operation, adopted a method which renders it almost a bloodless one. I lay a piece of calico bandage across the chest and upper part of the shoulder, and then fix an india-rubber cord or tourniquet round the shoulder over the bandage; this effectually compresses the axillary artery. In order to prevent the india-rubber cord from slipping, an assistant takes both ends of the bandage and holds them across the chest. If called upon to repeat the operation, I would pass a calico bandage under the india-rubber cord, behind as well as in front of the shoulder, then tie the four ends together, and thus dispense with the help of an assistant.—EDWIN MOORE, M.D., in *London Lancet.*

## ACUTE INTESTINAL OBSTRUCTION.

BY W. H. A. JACOBSON, M.B., F.R.C.S.

* * * * * *

In conclusion, I venture to suggest to you the following points in the treatment of a case of acute intestinal obstruction.

1. From the very first, it is not enough to refrain from giving solid food. The patient is to be fed by enemata, given *per rectum*, and consisting of milk and egg, wine or brandy, and given carefully twice or three times daily. If possible, only ice out of milk is to be sucked by the mouth.

2. If possible, no opium is to be given, as this drug has a dangerous tendency to mask symptoms; instead of opium, belladonna is to be given, and to be pushed in large doses. Many of those present may remember a paper in the *British Medical Journal* (August 31st, 1878), by Dr. Norman Kerr, on "Large Doses of Belladonna in Intestinal Obstruction." Five cases are given, somewhat briefly, and therefore incompletely recorded; all got well under the use of belladonna, though in three acute cases, two grains were given every hour, and sixteen, twelve, and fourteen grains were administred in these cases. I do not pretend to explain the benefit of this drug. I admit that its action would seem somewhat contradictory in the one case, as when rubbed into the perineum for spasmodic stricture, appearing to remove spasm; in another, to set up contraction of involuntary muscular fibre. But in a case like the one which I bring before your notice to-night, where a coil has, perhaps by irregular action, slipped under one or more bands, I can imagine that belladonna, if given early and in large doses, may enable the bowel, if this remain empty, by its own contraction to set itself free once more. But on this point I should be grateful for any information.

3. At an early date, the method of abdominal taxis should be made use of. Mr. Hutchinson, in bringing this method forward, recommends that it should be carried out as follows. Under chloroform, a very copious enema of water is to be given by a long tube, and, the anus being kept closed round the tube with a cloth, the fluid should be forced in to the utmost point of

distension. Then, simultaneously with the withdrawal of the tube and the escape of the water, the surgeon, with the flat of one hand on each side of the abdomen, should press gently but firmly on alternate sides, in such a way as to facilitate the movements of the coils upon each other. As much of this having been done as shall seem advisable, and the water having flowed out, let the patient (by means of a girth fastened to the bedposts) be raised by the feet till the trunk is inverted; and, whilst the patient is in this position, let the surgeon, with both his hands placed on the lowest part of the abdomen, press the whole mass of the intestines as high up as possible in the abdomen. Of course, during the whole of the time an assistant should carefully watch the effects of the chloroform on the pulse and breathing.

I have only one small alteration to suggest in the above details; and that is, knowing the difficulty of inverting a heavy patient, I think that it will be found better to overturn a chair, so that its sloping back be against the bed; over the chair-back let some clothes be laid, and the patient's body be gradually inverted over this by assistants standing on the bed. This will not only be found easier in the case of a heavy patient, but in that of a female one more decent in the eyes of any friends who may be present.

The above methods failing, I have only to urge an early operation, performed under the conditions already mentioned. It may be said, in answer to this, that recovery may and does ensue sufficiently often to make it worth while to wait. From the cases that I have seen, my own opinion would have been distinctly to the contrary—that, apart from those chronic or subacute instances where a case does well by an intussusception slipping back again or sloughing off; where a long-impacted scybalus or gall-stone passes on, or where a stricture is set free by partial ulceration of itself—that, putting aside such cases as these, acute intestinal obstructions, which have not yielded to such perliminary treatment as that sketched above, will end but in one way if left to themselves. No doubt the justifiability of these operations depends on the probability of a successful result; but hitherto, in nearly every case, the operation has been performed too late to guarantee any such success. For my own part, considering what has been attempted and what has been done in antiseptic surgery, and believing that great advances have yet to be made in the surgery of the abdomen, I trust that I do not assume too much when I say that, in a few years, we shall be able, in cases similar to that brought before you to-night, to promise a successful result with something like certainty —*British Medical Journal.*

## MANAGEMENT OF PATIENTS WITH PROSTATIC ENLARGEMENT.

BY REGINALD HARRISON, F.R.C.S.,
*Surgeon to the Liverpool Royal Infirmary.*

Patients long before reaching the confines of threescore years and ten, some by anticipation, others by a realisation, of the earlier symptoms of prostatic enlargement, not unfrequently ask advice as to how they may keep in abeyance the graver symptoms and complications of this affection. In advising such persons, I have for some years been in the habit of laying stress upon the following points:—

1st. To avoid being placed in circumstances where the bladder cannot be emptied at will.

2nd. To avoid checking perspiration by exposure to cold, and thus throwing additional work on the kidneys. In climates such as our own, elderly persons should, both in summer and winter, wear flannel next to the skin.

3rd. To be sparing of wines, or of spirits exercising a marked diuretic effect, either by their quantity or their quality. Select those which promots digestion without palbably affecting the urinary organs. A glass of hot gin-and-water, or a potent dose of sweet spirits of nitre, will not do anything to remove the residual urine behind an enlarged prostate.

4th. To be tolerably constant in the quantity of fluids daily consumed. As we grow older our urinary organs become less capable of adapting themselves to extreme variations in exertion. Therefore it is desirable to keep to that average daily consumption of fluids which experience shows to be sufficient and necessary. How often has some festive occasion, where the average quantity of fluid daily consumed has been largely exceeded, led to the over-distension

of a bladder long hovering between competency and incompetency. The retention thus occasioned, by suspending the power of the bladder, has often been the first direct step in establishing a permanent, if not a fatal, condition of atony or paralysis of this organ.

5th. It is important that from time to time the reaction of the urine should be noted. When it becomes permanently alkaline in reaction, or is offensive to the smell, both necessity and comfort indicate the regular use of the catheter. If practicable, the patient may be instructed in the use of the instrument.

6th. Some regularity as to the time of performing micturition should be inculcated. We recognize the importance of this in securing a regular and healthy action of the bowels, and though the conditions are not precisely analogous, yet a corresponding advantage will be derived from carrying out the same principle in regard to micturition.

The sum of these instructions is, that inasmuch as we cannot arrest the degenerative changes by which the prostate becomes an obstacle to micturition, it becomes of the first importance that every means should be taken to compensate for this by promoting the muscularity of the bladder and preventing it becoming atrophied or paralysed either by accident or improper usage.

When, in conection with hypertrophy of the prostate, the bladder ceases to expel its contents, I would lay stress on the importance of attempting, without loss of time, by mechanical and other agencies, to restore its power. To do this and to bring about a healthy condition of the urine, which is about the best stimulant that can be applied to a weakened bladder, I introduce and retain a gum-elastic catheter. To this is attached a piece of rubber tubing, through which the urine escapes as it is excreted, and is collected in a receptacle placed by the side of the bed. Thus urine is not allowed to be retained for a moment. Much depends on *how* all this is done whether it proves a source of comfort or not to the patient. If it is done properly—that is to say, if the utmost cleanliness in every detail is employed, changing the catheter twice a day (thoroughly disinfecting the catheter used with carbolic lotion), and adding to this, if necessary, a daily ablution of the bladder and urethra with some unirritating disinfectant, great relief will be experienced. Under such management I have frequently noted that the reaction of the urine, which may for some time have been alkaline, becomes acid. This alone indicates that there is now no stagnation. When the urine becomes healthy in character, I substitute for the retention of the catheter its introduction at regular intervals, allowing the patient to get up and go about.

Of the medicines that I have found most useful in restoring, in conjunction with mechanical means, the tone of the bladder, I would mention the ergot of rye, which I generally give in doses of twenty to thirty minims of the fluid extract in cinnamon-water. Of its use, further experience only strengthens the good opinion of it I have elsewhere expressed in the treatment of this complication of prostatic enlargement.—*Lancet.*

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MONTREAL GENERAL HOSPITAL REPORTS.—It is proposed to issue a volume of Reports from the Montreal General Hospital, to be ready about the end of January. *Contents*:—1. On Leucocythemia, by Dr. Howard. 2. Medical Cases, by Dr. Ross. 3. Surgical Records (Plates), Dr. Roddick. 4. Case of Spinal Apoplexy, by Dr. Wilkins. 5. Anatomical Abnormalities (Plate,) Dr. Shepherd. 6. Eserine in Ophthalmic Practice, Dr. Buller. 7. Sixteen Cases of Excision of Breast treated Antiseptically, Dr. Roddick. 8. Cardiac Abnormalities (Plates,) Dr. Osler. 9. New Kymograph, Dr. Wilkins. 10. Results of Antiseptic System during two years in M. G. H., Dr. Roddick. 11. Miscell. Ophthalmic cases, Dr. Buller. 12. Remarkable Case of Favus, Dr. Roddick. 13. Condition of Fusion of Two Segments of Aortic Valves (Plates), Dr. Osler. 14. Softening of Brain from Aortic Aneurism, Dr. Wilkins. 15. Statistical Review of cases of Pneumonia, Typhoid Fever and Rheumatism, admitted during past ten years, Dr. Bell. 16. Pathological Report, Dr. Osler. 17. General Surgical and Medical Report, May, '77 to May, '78. Price, to subscribers, $1; to non-subscribers, $1 50. Subscribers' names may be sent to Dr. Osler, 1351 St. Catharine Street, Montreal.

## Midwifery.

### A CASE OF OBSTINATE MORNING SICKNESS CURED BY INGLUVIN AFTER FAILURE OF OTHER AGENTS.

BY R. L. PAYNE, M.D.,

Ex-President of the Medical Society of North Carolina; Member of the North Carolina State Board of Medical Examiners, etc., Lexington, N. C.

Mrs. R. S., a young married women, eighteen years of age, came under my care March 27th, 1878, and as her case presented some peculiarities, I am induced to make the following report of it:

She was at this time advanced to the third month of pregnancy, and desired me to prescribe for the relief of obstinate vomiting, which she said began to be troublesome, as well as she could tell, at the beginning of pregnancy. At first it was confined to the early morning hours, but it had continued to become more aggravated, until now she vomited regularly throughout the whole twenty-four hours, whenever anything was taken into the stomach.

Before conception, she was a stout, rosy-cheeked, and somewhat fleshy woman; but when I first called to see her, she was a pale, hollow-eyed, emaciated creature, so feeble, indeed, as to be scarcely able to walk alone. Her pulse was frequent and feeble, beating 120 times a minute; temperature about 100°F.; tongue red and dry; and bowels constipated. The skin and the whites of the eyes were very decidedly tinged with yellow, as if in a mild case of jaundice.

I gave her six grains of calomel, to be followed on the next morning by a simple enema of soapsuds and salt, and prescribed the following infusion, which I found some years ago in the *Baltimore Medical Bulletin*, and which has been of signal service to me in many cases of morning sickness:

℞. Pulv. colombo .....ʒj.
Pvlv. ginger.....ʒj.
Pulv. senna .....ʒss.
Boiling water.....Oj.—M.

Of this she was directed to take a wine-glassfull one-half hour before each meal.

*March* 30.—Saw the patient again, and found her not in the least degree improved, except that her bowels were in a more soluble condition. I continued the infusion, and prescribed in addition ten grains of the subnitrate of bismuth three times a day; and as she was exceedingly feeble, and retained absolutely nothing upon the stomach, I ordered strong beef tea and brandy by enema every six hours. I also prescribed champagne, and as she particularly craved ice and acidulated drinks, they were allowed her *ad libitum*.

*April* 2.—Patient was no better; vomiting almost incessantly, but had retained the injections of beef-tea and brandy very well; had been crying for ice and lemonade. The champagne had not been procured, but she had been taking, instead of it, a very excellent article of home-made grape wine.

All remedies by the mouth were now discontinued except the wine and the biscuit, to each dose of which was added one-fourth of a grain of the sulphate of morphia. I know that opium is not highly recommended, and is not generally well borne in cases of morning sickness; but my patient was greatly in need of sleep, and I determined to try it.

*April* 5.—Patient was in all respects worse; vomited night and day; had slept none since my last visit. I gave one-fourth of a grain of morphia hypodermically, and prescribed twenty grains of the bromide of potassium three times a day, in the tincture of ginger, and nothing else by the mouth. Continued the soup and brandy by enema.

*April* 9.—Patient had slept more since I last saw her, but was not any better in any other particular. I continued the injections and the bromide, in twenty grain doses, at bedtime only, and prescribed the following powders:

℞. Oxalate of cerium.....gr. x.
Subnitrate of bismuth.....gr. xxx.

M.—Make ten powders. S.—One powder every six hours.

This combination would have been given sooner, but some days elapsed before the oxalate of cerium could be procured. I forget, too, to mention before this that milk-punch was allowed her all along whenever she desired it.

*April* 12.—The poor thing was very evidently worse. Pulse 130; skin cold; lips blue; eyes

sunken; countenance haggard—and she vomited everything swallowed—even ice, ice-water or lemonade. I continued the soup and brandy injections, and gave her the following diluted tincture of iodine:

℞. Tinct. iodine.....gtt. xxv.
Alcohol.....f℥iij

M. S.—Three drops every four hours in a teaspoonful of ginger-tea.

*April* 15.—The patient was still living, but there had been no change for the better; she was exceedingly feeble, but still retained the injections for several hours after they were given. The last prescription was continued, and she was allowed whatever she might fancy.

*April* 17.—Very little change since I last saw her; however, she was certainly not at all improved. The mouth of the womb was now dilated (as suggested by Copeman, of Norwich, England) by introducing the end of the index finger slowly and carefully within the external os, and forcing it gently up to the internal orifice, where it was suffered to remain for several minutes. I prescribed lime-water and milk, and continued the injections, and the milk-punch also, whenever she would take it; and this constituted the only treatment pursued whilst I was trying the effect of dilatations. The dilatations were repeated at regular intervals; that is to say, on the 19th, 20th, and 22nd days of April without the least apparent benefit.

*April* 24.—I dilated with the finger as above described, and also with Atlee's dilator, because I feared that perhaps the dilatation with the finger alone was not sufficient, as no good results had followed. The woman was evidently no better; she had retained nothing on the stomach, and was exceedingly prostrated. I was disappointed to see no good follow dilatation, since it had been so highly vaunted.

*April* 25.—Patient was no better. Dilatation having so utterly failed to bring relief, I next resorted to cauterization of the os externum and cervical canal with the solid stick of nitrate of silver, as recommended by Dr. Jones, of Chicago, and afterwards so highly approved by Dr. J. Marion Sims. I cauterized most thoroughly, and I thought that surely this would not fail, but it did fail utterly!

*April* 26.—She appeared to be *in statu quo*—no better, no worse. I came to the conclusion that the patient had a fair share of the *vis vitalis*. I prescribed carbolic acid three times a day.

*April* 27.—Patient still about in the same condition as when I last saw her. Now her tongue was dry and red; skin dry and harsh and cold; pulse very frequent and very feeble. She spoke in a whisper, and longed for nothing but ice. I told the family I feared the end was nigh! I had given it as my opinion sometime before this, that it was best to bring about abortion in order to give the poor sufferer the best chance for life; but then she was opposed to it; they were, also, and my advice was not taken. Now all the parties were very anxious to have it done. With my patient so extremely ill, and apparently so near to death, I was very loth to assume the responsibility of such a proceeding; yet I really saw no other possible chance to save her. Consequently I determined to adopt this chance as a *dernier resort*. I knew full well that if she died there would be some to say I killed her; and I knew also if she died with it not done, my conscience would ever trouble me.

Accordingly on the 28th of April, the os and cervix uteri were again dilated by the use of Atlee's dilator, the finger, and a large sponge tent, which last was passed entirely through the os interium and suffered to remain in position about twelve hours. Then Simpson's sound was carefully introduced to the fundus, and carried as carefully as possible (in order not to break the membranes) around the whole inside of the womb between the membranes and uterine walls. That night she began to have regular pains, and on the 30th of April she aborted. The vagina was kept securely plugged with carbolized cotton tampons, so that she lost but little blood while aborting, or subsequently. From this time she slowly improved, growing better every day until about the middle of May. Her lochial flow continued about twelve days after the abortion—becoming less each day until it ceased. Her pulse became less frequent and gained strength; appetite returned; stomach retained food; color improved; strength and flesh began to return, and I

thought that my patient was hastening to a speedy recovery.

But on the 16th of May she began to vomit again, and speedily lapsed into a condition to all appearances identical with the one existing before the abortion. Now, I freely confess, I was at a loss for a diagnosis. By the most careful examinations I could detect no inflammation or other diseased conditions of the uterus or its appendages, or of any of the pelvic viscera; consequently I could not now believe that the continued vomiting was dependent upon sympathy between the stomach and pelvic organs. Had long the presistent and unnatural action of the stomach induced inflammation or ulceration of that viscus? I was not exactly prepared to say, but perscribed lime-water and milk, gave small particles of ice, applied a large blister over the epigastrium, and sustained her mainly by soups and brandy by the rectum.

The next time I visited her, she was so little improved that I substituted bismuth for the milk and lime-water, and directed her to take nothing but these and ice by the mouth. The injections were regularly given. I saw her very often after this, and gave her, at different times, calomel and opium, creasote, oxalate of cerium, nitrate of silver, pepsin, lactopeptine, etc. After all other treatment had failed, supposing that her condition might be caused by malarial poisoning, I gave quinine freely by the mouth, by the skin, and by the rectum, without any perceptible benefit. At last, in spite of the untoward circumstances, she began slowly to improve, little by little, being sometimes worse, sometimes better, but gaining a very little all the while until September 3rd, when I discharged her.

And now I must make an honest confession and freely admit that I do not think she derived any special benefit from any remedy, except the ice and such as were given by enema. I think, too, that she would have died had she not aborted. What was the special lesion? what the diseased condition? In common parlance, what was "the name of the baby?" "This deponent saith not," not because he does not know, of course not! *We doctors always know!*

Was it sympathy between the stomach and uterus? Was it acute or chronic gastritis, or gastric ulcer? Was it simply the effects of malaria, or was it septicæmia? Was it chronic meningitis? Somebody please say. I mean after the abortion. Habit, they say, becomes a second nature. Was the vomiting kept up after the abortion by habit?

The case was to me a very interesting and very troublsome one. And there is another point of interest connected with it. The woman is pregnant again—gone about eight months. She was troubled with morning sickness in the early months of the present gestation.

I prescribed five grains of ingluvin (prepared by Warner & Co.), four times a day; it acted like a charm, and she is now happy and expectant.—*Virginia Medical Monthly.*

## GINGIVITIS OF PUERPERAL WOMEN.

It is known that during pregnancy the gums frequently become red and congested; a slight pressure on them is sufficient to cause a moderate hæmorrhage. At a more advanced stage the teeth lose their solidity, become movable, and may be spontaneously shed from the alveolar cavity. Mastication is rendered difficult, but never causes such pain as is common in alveolo-dental periostitis. In examining the cause of this gingivitis, Dr. Pinard states that Delestre, in his thesis, lays stress on the congestion, tumefaction, and softening of the gums during menstruation, which proves that the functional activity of the ovary and uterus may react on the organs of mastication, and predispose them to congestion and inflammation. Previous pregnancies and a bad general condition seem to exert a great influence as predisposing causes.

This affection (puerperal gingivitis) ordinarily appears after the fourth month of pregnancy, and tends to disappear naturally a month or two after parturition. The local treatment consists in touching the diseased parts with a more or less concentrated solution of iodine, with glycerolate of tannin, chlorate of potash, chromic acid, etc. The local treatment which appears most efficacious, however, and is always crowned with success, is the daily application to the healthy and diseased margins of the gums of lint dipped in a solution of chloral and tincture of cochlearia, equal parts.—*N. Y. Medical Journal.*

## PUERPERAL FEVER TREATED BY BENZOATE OF SODA.

Dr. Lehnebach writes in the *Allgemeine Medicin. Central-Zeitung* that in February last six cases of puerperal fever came under his care. In these cases, artificial interference had been necessary; and all the women were under the care of a very skilful and careful midwife. The source of infection could not be discovered. Three other women, under the charge of another midwife, in whom Dr. Lehnebach was called on to complete delivery by artificial means (one being a difficult forceps-case), were not affected. Of the six cases of puerperal fever, two (a primipara and a pluripara) died in a few days, in spite of the energetic use of quinine and wine. The symptoms were highly febrile, the temperature in the first case exceeding 109° Fahr. He was hence led to try, in the remaining four cases, benzoate of soda, as recommended by Klebs and Letzerich. The result was so remarkable that he believes that, if his experience be confirmed by that of others, benzoate of soda will be as much a specific in puerperal fever as salicylic acid is in acute rheumatism. Of the four patients in question, two were primiparæ and two pluriparæ. In the cases of the primiparæ, he was twice obliged to administer fifteen-grain doses of hydrochlorate of quinine along with the benzoate of soda, as the temperature rose to 105° Fahr. soon after labour. The action of the quinine was much more decisive than in the fatal cases, where he had given half a drachm; the temperature fell from 106° to 100.4° Fahr. Moreover, the quinine, when given with the benzoate, did not produce nausea; whereas in one of the cases it was almost immediatly ejected by vomiting when given alone. Except in one case, the temperature did not again rise above 102.75° Fahr. Dr. Lehnebach says also that he has had much success in the treatment of gastric catarrh in children, and of diphtheria, from the use of benzoate of soda—administered in the latter disease both locally and internally.

Dr. John Kirkpatrick, of Chippewa, Ont., has received British Government appointment on the West Coast of Africa

# Original Communications.

## ON THE ACTION OF STRYCHNIA, FROM A NEW STANDPOINT.

BY THOMAS W. POOLE, M.D., LINDSAY, ONT.

It is nothing new to refer the tonic and invigorating effects of strychnia, in medicinal doses, to a species of food-action, which it has in common with arsenic, phosphorus, and some other drugs. It is with its poisonous effects that we here propose to deal; and among the most prominent of these are spasmodic contraction of the muscles.

On the physiological theory at present in vogue, these spasms and tetanic contractions are due to an excess of nerve force developed in the spinal centres, as the effect of this drug, in consequence of which "the muscles receive from the nerves a preternatural stimulus to action." (*Pereira.*) We have had the boldness to challenge this theory, and availing ourselves of the facts of physiological experimenters, have endeavoured to show cause why it should be set aside as erroneous, and its place supplied by a theory more in accordance with the general facts. Physiologists assign to muscular tissue an inherent contractile power of its own, and we contend that the real function of nerve force is to restrain and antagonize this contractile power of the muscles—of the muscular walls of the hollow visceræ and of the muscular coats of the arterioles, all of which, in death, when nerve force is completely extinct, pass into a state of permanent contraction, which only relaxes in the disintegration of putrefaction.

As the facts of strychnia poisoning, as popularly interpreted, are directly antagonistic to the theory just mentioned, it behoves us to show, if we can, that the popular interpretation of the facts is erroneous, and that the view here set forth, and elsewhere advocated at greater length, is really the true explanation of the facts on record. To this we address ourselves as briefly as possible.

Among the symptoms of strychnia poisoning, apart from the spasms, are anxiety, trepidation, formication of the skin, coldness of the surface, depression of spirits, feeling of weight and weakness in the limbs, difficulty in keeping the

erect posture, staggering, vertigo, appearance and sensations of intoxication, swollen veins, bloatedness and lividity of the face, blueness of the hands, quick and weak pulse, dilated pupils, involuntary escape of urine, asphyxia, final exhaustion and death. No drug produces effects like these *as a stimulant:* most of them, on the contrary, are among the symptoms of the paralysis produced by narcotics.

Dr. Pereira quotes a number of authorities to show that *softening* of the brain (especially the cerebellum) and the spinal cord are among the effects found on dissection after death from strychnia. Is not a deprivation, arrest, or paralysis of nerve power, to be predicated from centres so conditioned, rather than a "preternatural" generation and "discharge" of nerve force?

Strychnia belongs to the same botanical genus, or family, as curare; and the methyl and ethyl compounds of strychnia, while retaining most of their chemical properties and giving the ordinary reactions of strychnia, have a similar action to curare, and, like it, are known to be profound paralyzers. This fact, though by no means conclusive, is highly significant, and the presumption from it is, that strychnia is invariably a paralyzer, but has its mode of paralysis modified by the different combinations into which it enters.

Dr. Ringer states that "most of the opium alkaloids affect the body in the same way" as strychnia. (*Ther.*, p. 498.) Thus opium itself tetanizes frogs, and "morphia employed hypodermically, in very large doses, never causes sleep, nor stupor, but convulsions" (page 478). This similarity in effects between avowed narcotics like these, and strychnia, is surely best explained, not on their antagonism, but on the similarity of their mode of action. Narcotics are invariably paralyzers (*Anstie*), and if strychnia behave like a narcotic, it is fair to class it as a paralyzer also. Dr. Ringer further states that, as a result of strychnia poisoning, the motor nerves convey impressions imperfectly, which is surely more naturally attributable to depression, or paralysis, than to stimulation of their functional activity. It also appears that strychnia sometimes kills without inducing spasms or convulsions, and Dr. Ringer says it then "apparently directly depresses the motor nerves," since these are found to have lost their conductivity. These are probably the class of cases in which Periera says strychnia causes death "by excessive exhaustion of nerve power;" conditions of "depression" and exhaustion wholly inconsistent with the idea of true stimulation.

Dr. J. Harley has shown that strychnia prevents the oxygenation of the blood, and Dr. C. B. Radcliffe, F.R.S., argues that such an effect is equivalent to the loss of blood; since blood so conditioned is useless in the organism, and might as well be withdrawn. As Dr. Anstie remarks, in view of these facts, a drug which produces such an effect "can hardly be supposed to communicate increased force to the nervous system." (*Stim. and Narc.*, p. 72.)

Here, then, are a series of facts in regard to strychnia poisoning, which it appears impossible to reconcile with the theory that this drug is an excitant to the nervous system, and evokes nerve force in a "preternatural" manner as a stimulant to the muscles. These facts are, however, fully in accord with the theory that muscular spasms are due to the withdrawal of nerve force, and that strychnia "depresses the motor nerves" so effectually as promptly to set the muscles free,—which is the very condition of the motor centres, which the physiological experiments of Sir Astley Cooper, Drs Kussmaul and Tenner, Dr. Brown-Sequard, and others, as quoted by Dr. C. B. Radcliffe, F.R.S., (*Lecture on Epilep., etc.*), show to be most favourable to the occurrence of muscular contraction.

Dr. Anstie, among other statements strongly corroborative of this theory, writes that "convulsive movements never occur till such a late stage of the narcosis as necessarily implies that the life of the nervous system is greatly impaired. Even in the case of strychnia poisoning, the apparent increase of common sensibility, which exists between the spasms, is accompanied, as we have already seen, with loss of discriminative power in the organs of special sense," as well as in tactile perception. "The influence, therefore, *be it a compelling or liberating power*, which presides

over muscular contraction in the interest of life (that is, of individuation), must be a co-ordinative influence . . . . . and we cannot be wrong in supposing that an agent which breaks through the communications, at any part, must be a devitalizing agent, whatever may be the result to *that portion of the muscular system which is thus cut off from the general life of the body.*" [The italics are ours.] (*Stim. and Narc.*, pp. 194, 5-9.) Indeed, it may well be questioned whether so potent a poison would ever have been classed (in poisonous doses) as a spinal stimulant, were it not necessary so to regard it in deference to the popular theory that muscular contraction is dependent upon a stimulus from the nervous system. "What do we know, for instance, or what did we know till quite lately, of the real physiological action of strychnia, one of the most remarkable medicines which modern practice employs? We assumed that it was an irritant to the spinal cord, but *this was merely in deference to preconceived ideas as to irritability*, so far are modern empirics from throwing off the yoke of theory; and, in fact, the researches of Dr. Harley were the first scientific attempt to give an explanation of the matter." (*Ib.* p. 73.) It was, then, out of regard for the theory of the day, and not from anything in the facts of strychnia poisoning themselves, that Dr. Pereira and others have been led to infer that strychnia is an excitant to the spinal cord, and that under its influence "the muscles receive from the nervous system a preternatural stimulus to action." This was surely a slender basis for a doctrine which passes current, as though its claims had been established with scientific accuracy: a doctrine which, after all, is a mere inference from preconceived ideas regarding certain facts, and must not be confounded with the facts themselves, which may admit of a very different interpretation. It is, moreover, a doctrine which draws very largely upon our credulity; for it requires us to believe that the vitality of the organism is extinguished by the very agent which is said to exalt vital power to the highest point of development, and at the very moment when it is so exalted.

Let us pursue the subject a little further. "Strychnia affects paralyzed sooner than unparalyzed muscles." (*Dr. Ringer, Ther.*, p. 500.) The same is true of electricity, and in both cases the fact is unaccountable on the view that these agents are stimulants to nerve tissue. It admits of an easy and natural explanation on the view that enfeebled motor nerves more readily succumb to a paralyzing agent than do healthy nerves; and thus the muscles of the implicated limb are sooner set free, to pass into a spasmodic state, than are the muscles controlled by the more vigorously acting nerves of the healthy limb.

Again, after poisoning by strychnia, electricity fails to produce muscular contraction when applied to a motor nerve. Why? Because strychnia has depressed the functional power of the nerve, and proportionably set the muscle free. Electricity not being a stimulus, does not improve this condition (as a stimulus ought to do). If the nerve *trunk* is quite paralyzed, and electricity can deaden it no further, it will fail to set the muscle free to contract any more than at present. If the electrodes are then transferred to the muscle itself, contractions may occur—a fact which is to be explained on the ground that the terminal fibres of the nerve has retained its molecular polarity, and, with this, its restraint over the muscle after the nerve trunk has ceased to act. Electricity here simply overthrows muscular polarity in its last retreat—that of the intra-muscular nerve endings. When this is accomplished, electricity produces no further effect on the muscle, which is (erroneously) said to have lost its "irritability."

This view of the case explains other apparently anomalous conditions. Thus, if the sciatic nerve of a frog be cut, and the animal be then poisoned with strychnia, all the muscles of the body, except those supplied by the cut nerve, are convulsed; and the terminal fibres of the cut nerve retain their "irritability" longer than those of the undivided nerve of the other limb. Here the nerve centres are paralyzed with an intensity sufficient to reverse molecular nerve polarity all the way to the muscles, which are consequently set free to contract. But in the case of the cut sciatic

nerve, the paralyzing wave reaches no further than the point of section; and its distal portion, having its molecular state undisturbed, retains control over the muscle, which, as a consequence, exhibits no spasms.

This explanation appears to us much more natural and physiological than that of Dr. Ringer (*Ther.*, p. 499), who states that "the unconvulsed muscles and nerves [of the limb whose sciatic nerve is cut] are as much poisoned by strychnia as the parts [of the body generally] which are convulsed." We do not believe that the muscle is paralyzed, to the impairment of its contractile power; because this inherent power of the muscle, apart from the maintenance of its nutrition, is independent of vital processes, and survives even the general death of the organism. Whatever is done by strychnia is done to nervous tissue; and as nerve trunks are not originators, but mere carriers, of nerve force, modifications of this force must come from their headquarters—the nerve centres. Poisoned blood cannot influence the axis cylinder of a nerve trunk, because the membranous sheath which surrounds it is not penetrated by blood-vessels. (*Dr. Carpenter's Phys.*, p. 335.) And if this be true, the distal portion of the cut sciatic, not being *directly* poisoned by the strychnia in the circulating blood, and not being reached by any influence emanating from the nervous centre (from which it is separated), is in the condition we have assigned to it: its molecular polarity is undisturbed, and it continues to restrain its muscles, which alone exhibit no signs of spasmodic contraction.

The same explanation applies to the non-contraction, for a time, of muscles whose motor nerves have been purposely or accidentally severed; to a similar non-contraction of muscles in ordinary hemiplegia and in the milder forms of paralysis of the nerve centres by drugs; for though in these cases the power of the nerve centres is exerted towards the muscles, the morbid action is not sufficiently intense to overthrow the molecular polarity throughout the entire trunk of the peripheral nerve, the distal extremity of which, as stated, maintains its previous polarity, and with this its restraint over the muscle.

The foregoing view of the stability of the molecular state of peripheral nerve trunks is fully borne out by the observation of Dr. Thomas Laycock, Professor of Edinburgh University, who states that "numerous experiments on the nerves of muscles show that the motor nerve fibrils have their own inherent properties in entire independence of brain, spinal cord, or nerve centres; and not only in separate limbs, but in muscles that have been cut from their limbs." (*Med. Times and Gazette*, 1871; *Braith. Retros.*, January, 1872, p. 58.)

From these considerations we may deduce the following general principles:—

(*a*) A drug, or disease, which paralyzes the nervous centres, may fail to reverse the molecular condition of the motor nerve trunk all the way to its terminus in the fibre cells of the muscle; and when this is the case, the restraint of the nerve over the muscle is not withdrawn, and the muscle cannot pass into a state of spasm.

*Examples.*—Cases of hemiplegia without spasms of muscle. Cases of section, injury or paralysis of motor nerve trunks, where the intra-muscular motor nerve endings serve to retain control over the muscle and prevent its contraction.

(*b*) When the paralyzing effect of a drug, or of a lesion in the motor nerve centres, reaches the terminal portion of the motor nerve trunks (that is, reverses the previous polarity of its molecules), the muscle is promptly set free and passes at once into a state of contraction, which will be clonic or tonic in proportion to the alternate or permanent character of the molecular change thus produced.

*Examples.*—"The swift destruction of the life of the spinal nervous centres . . . . as in poisoning by large doses of strychnia" (*Anstie*); the paralysis occasioned by large doses of morphia, hypodermically administered (before referred to); the paralysis of electrical currents; and the effect of those lesions of the brain which induce the speedy onset of "early rigidity;" the onset of epilepsy, etc. These intenser perturbations of the nervous centres brook no delay, but promptly effect the overthrow of normal nerve polarity from centre to periphery, setting the muscle free, and, in death accelerating the onset of *rigor mortis*.

*Antidotes to Strychnia.*—So much for the actual phenomena of strychnia poisoning, the facts of which it will be seen accord well with our theory. Now a few words as to the antidotes to strychnia The chief of these is chloral hydrate, which, in large doses—such as must here sometimes be given—would, under ordinary circumstances, prove dangerous, from its decidedly narcotic and paralyzing effect, and, apparently, ought rather to aggravate the condition, if, as we contend, strychnia be itself a paralyzing agent.

But, if the authorities are to be believed, the first effect of this drug, as ordinarily administered, is that of a stimulant. The remarkable flushing (vascular dilatation) it produces has been fully noted by Dr. Crichton Browne and others. Dr. W. A. Hammond states—"I have seen it produce great increase in maniacal excitement. *Its first effect is always to augment cerebral congestion,*" etc. (*Dis. Nerv. Syst.*, p. 383.) Increased blood supply to the nervous centres is the prime condition for augmentation of nerve force, which is here necessary to counteract a powerful paralyzer. We explain the beneficial effects of large doses of this drug in strychnia poisoning, on the same principles as the use of large doses of alcohol in fever, or of opium in tetanus, of which Dr. Anstie writes—"There would seem to be little difficulty in deciding that *the ordinary stimulant effect* of small doses of alcohol and opium may be produced in cases of acute exhaustion of the nervous system *by doses of these drugs which, under other conditions, would be narcotic in their action.*" (*Stim. and Nar.*, p. 213.)

All that it is necessary to say here of calabar bean, as a reputed antidote to strychnia poisoning, is, that Dr. Huseman, a German authority, reports it as "entirely useless" for this purpose; and the Edinburgh Committee, presided over by Dr. J. H. Bennett, find that while strychnia and calabar bean modify each other's effects, they mutually fail to prevent death from a fatal dose of either. "On the contrary, the advent of death was accelerated." (*Report*, p. 92.)

Cases are reported in which bromide of potassium has apparently effected cures in strychnia poisoning. The efficacy of this drug, in many cases of epileptic spasms, is well established; but it is not by any means an indiscriminate remedy here. It is not merely useless, but injurious, in epileptic seizures in which the condition of the brain is that of anæmia, as is usually the case in convulsions occurring during sleep. It is in those not unfrequent cases of dilated arteries, with a sluggish blood-stream, that this drug (as well as digitalis, belladonna or atropia) best displays its beneficial effects. Here it acts by reducing the calibre of the dilated vessels to normal proportions, thus quickening the blood-stream, and in this way contributing effectually to the nutrition of the nervous centres. Thus, under the conditions stated, these several drugs become indirect stimulants to the nervous system; and in accordance with the theory we advocate, they do this consistently with their general action as depressors or paralyzers of nerve function. By a sedative or depressant action on the vaso-motor nerves, the *dilating* power of which over the arterioles is lessened, a preponderance is given to the contractile influence of the muscular coats of the arterioles, which, like other muscular tissues, possess this inherent endowment. As a consequence, the calibre of the over-dilated vessels is reduced, and these vascular tubes are "tightened," so as to favour a more rapid blood-stream, and its consequences in improved innervation, as stated above. It is true these effects on the circulation are also attributable to strychnia; for, as Dr. J. Milner Fothergill states, "the small arteries have been seen to contract in strychnia poisoning;" and on this account it is highly improbable that bromide of potassium will prove a reliable remedy in other than very exceptionable cases of strychnia poisoning. Cases of strychnia poisoning cured by calabar bean have also been reported; but, as already stated, this drug has been authoritatively declared worthless for this purpose. It is, therefore, not too much to infer that these alleged cures were either cases of spontaneous recovery, or else the other means resorted to prevented a fatal issue.

The very fact stated above, that strychnia produces arterial contraction, is a proof that it is not a stimulant to the nervous centres; for

no drug produces this effect as a stimulant, but rather the contrary. In death, when nerve force is extinct, the entire arterial system is as much contracted as it is possible for it to be, and is empty, the blood being extruded into the veins which have a larger capacity. Any drug, therefore, which produces arterial contraction *tends to bring about a state similar to that in which nerve force is inoperative*, and this is the *role* of a paralyzing and not of a stimulating agent.

Dr. J. Milner Fothergill also states that, "when death is induced by strychnia poisoning, it is brought about by asphyxia; the muscles connected with the thorax being so spasmodically contracted in the convulsions that the respiration is arrested." (*Antag. of Ther. Agents*, p. 55.) He also states that "it is certain that strychnia does not act upon the muscles directly, but mediately, through the nervous centres." Here it is evident that an "anti-spasmodic" is urgently required; and it cannot be denied that our anti-spasmodics, as a class, are stimulants, and that they are effectual just in proportion to their stimulating character. How is this fact to be accounted for, if, in states of spasm, the nervous centres are already unduly active and are "preternaturally" stimulating the muscles? The fact is very naturally accounted for, if nerve force is here in abeyance, and the muscles are taking advantage of the absence of their customary nervous restraint to assert their inherent and independent power of contraction. On what other view of the case than this can the fact be explained that "stimulants" are by far the most curative agents in tetanus, as Dr. W. A. Hammond has proved by statistics? (*Diseases of the Nervous System*, p. 541.) Accordingly, we find evidence accumulating as to the value of dilute alcohol as a successful antidote to strychnia, as it has long been known to be to the poison of snake bites.

In a case reported by Dr. Dobie, ammonia, brandy and digitalis were given with "marked improvement." Sir Thomas Watson reports favourably of the effects of brandy and water in the cases of two patients suffering from the spasms of strychnia poisoning. (*Lectures*, etc., p. 378.) The *Canada Lancet* for August, 1878, p. 360, contains a translation from an Italian journal of a case of this kind, in which 36 grains of strychnia had been five hours in the patient's stomach, and in which the cure, which was happily effected, was attributed to the injection into the rectum of 500 grammes (nearly 20 ounces) of brandy in a like quantity of water, and 2 grammes (a little over half a drachm) of laudanum, "to secure retention of which a tampon was inserted in the anus." The convulsions ceased as this stimulating fluid became absorbed; the only other treatment adopted being the administration of a pint of olive oil and a draught of ioduret of potass. and iodine in water, which the physician in charge properly regarded as of doubtful value. No vomiting had occurred, and the oil had to be introduced through the vacancy caused by the absence of two teeth, so strong was the trismus.

The *Practitioner* (vol. xv., p. 220) quotes from the *Pacific Medical Journal* the following narrative by Dr. Morey, which indicates the antidotal power of strychnia over alcohol:—"I first became acquainted with this man in 1861. He was in the habit of eating strychnia after a long debauch, and in a condition bordering on *delirium tremens*. He took the bottle of strychnia, poured some of it into his hand, and threw it into his mouth, carelessly, as though it were salt; and in the course of half an hour, not feeling the effects he had wished, he repeated the dose, and continued it until he became perfectly sober. The quantity required would correspond to the length of time he had been drinking and the quantity of whiskey he had taken. I was struck with the wonderful effect it had to completely sober him, and leave the system so entirely free from any nervous disturbance, and without the reddened and bloated appearance of the face and irritable stomach of the drunkard. After a drinking bout of two weeks, he got up as clear and bright in the morning as if he had taken no liquor at all. Though previously on the verge of delirium, the strychnia made his mind clear, his eyes bright, his skin clear and fair, with all the appearance of a man in perfect health and vigour. He ate his breakfast in a hearty manner, and went to his work as though he had never taken a drop of liquor in his life.

This man commenced to use the strychnia in 1856. From 1861 to 1867 I saw the patient frequently, and almost as often have seen him take the strychnia, until it ceased to be a curiosity except to study its physiological action. In every instance when he took it, the appearance of dissipation would disappear in a short time. Whether strychnia is an antidote to alcoholic poison, and *vice versa*, was a study for which I could find no authority to guide my conclusions."

The foregoing appears to have been an exceptional case, in which, either from a tolerance of the drug acquired by use, or from idiosyncrasy, the medicinal or food-action of the poison was obtained from doses which would be ordinarily dangerous or fatal. That the invigorating effect of medicinal doses of strychnia should tend to obviate the partial narcotism and semi-paralysis of the victim of an alcoholic debauch is not to be wondered at. A similar effect is attributed to ammonia, a well known stimulant. Taken in connection with other facts—especially the influence of alcohol over strychnia poisoning—it may be that the alcohol in this case proved the chief cause of the tolerance of the unusual doses of strychnia; and if this should be verified by further observations, the mutual antagonism between strychnia and alcohol would be established.

In the *American Journal of the Medical Sciences* for October, 1879, page 587, we find a condensed article on this subject from the *Practitioner* for September, 1879, from which we quote as follows:—"Dr. Huseman has confirmed (*Arch. f. exp. Path.* x., p. 101) the experiments of Amagat *that, in cases of poisoning by small doses of strychnia, the treatment with alcohol is to be preferred to the treatment by chloral.* The reason for this is, that the quantity of alcohol required to neutralize the small but fatal dose of strychnia is not dangerous to life, although such may be the case from the amount of chloral administered."

Why the same reasons should not apply equally to large doses of strychnia as to small but fatal ones, and the relative effects of chloral and alcohol as antidotes, is not clear from what follows in the article referred to. If the larger dose of alcohol here required would be dangerous from its narcotic effect, the same objection ought to apply to chloral; and if the effect of the strychnia is to afford a tolerance for the one, it ought, and probably does, for the other also. Indeed Drs. Stillé and Maisch, while endorsing the value of chloral, in reducing the force and frequency of the paroxysms in strychnia poisoning, add, "but a lethal dose of strychnia cannot be combatted by an adequate dose of chloral, which would be equally dangerous to life." (*Nat. Dispens.*, p. 394.)

This is all we have to say on this subject at present. We think sufficient evidence has been produced to justify the conclusion that the prevailing opinions regarding the mode of action of strychnia have been formed without due consideration, and in deference to a preconceived hypothesis which has since been greatly modified: that these opinions do not rest on any scientific basis whatever, and having outlived their time, urgently require reconsideration. We think it will also be obvious that both the facts of strychnia poisoning, and of its antidotal treatment, prove that strychnia is not a stimulant, but a paralyzer of the nervous centres which it chiefly influences, namely, those of the spinal cord; and that its effect on the motor nerves is such as to paralyze their action, proportionately setting the muscles free to exert that inherent contractile power with which they are endowed, and which eminent physiological experimenters have declared displays itself in proportion to the freedom of the muscles from the influence of the nervous centres.

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DEFINITION OF EVOLUTION.—The *Chemist and Druggist* observes that it was Herbert Spencer who made the following definition of evolution: "Evolution is a change from an indefinite, incoherent homogenity to a definite coherent heterogeneity, through continuous differentiations and integrations." And it was the mathematician Kirkman who translated the definition into plain English: "Evolution is a change from a nohowish, untalkaboutable, all-alikeness, to a somehowish, and in-general-talk-aboutable, not-at-all-alikeness, by continuous somethingelseifications and sticktogetherations."

## Translations.

### The Inoculability of Certain Skin Diseases.

Dr. E. Vidal, of the *Hôpital Saint Louis*, at the Geneva Congress set forth the result of his numerous experiments upon this subject.

Certain skin affections are inoculable. We can reproduce the pustule of ecthyma, the vesicopustule of impetigo, the vesicle of herpes, and the brella of epidemic pemphigus of the new born, either upon the subject himself or upon a healthy individual. They are inoculable and autoinoculable. Other affections, although perfectly characteristic and typical, are not inoculable; such are eczema, hydroa, herpes zona, pemphigus dintinus, and, probably, molluscum contagiosum, or acue varioliforme.—*Gaz. des Hôpitaux.*

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### Opium for Infants.—Parrot.

In an admirable paper on the treatment of Athrepsy in Infants Parrot (*Gaz. des Hôp.*) thus refers to opium:—"I like not the employment of opiates for babes. Trousseau detested them; he had seen accidents determined by a single drop of laudanum in a child one year of age. I, too, have seen one drop of laudanum (of Sydenham) produce coma, and algidity lasting 24 hours in a child of the same age. At the age of a year and a half, or ten years, laudanum must be given only in the dose of *one drop* per 24 hours, and *well divided.* We should mistrust it in in all shapes: if it be given by enema we cannot tell how much is taken into the system, and if given by the mouth it is rapidly absorbed."

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### The Tincture of Eucalyptus Globulus in the Treatment of Croup.

Dr. Walcher communicated to the Medical Society of Strasbourg, in May last, a paper bearing this title, which in the *Gazette Médicale*, for October, from which we make the following extract:—"But in the cases where this heroic means (tracheotomy) cannot be applied, you will obtain, in children suffering from from croup, many more recoveries from the tincture of eucalyptus, than from chlorate of potash, cubebs, or copaiba and the usual simple tonics. I may sum up by saying that the tincture of eucalyptus is a very powerful tonic and stimulant remedy in diphtheria in general, and especially most useful for the local manifestation in the larynx, the croup so common in infancy."

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### Creasote in Phythisis.—Reuss.

Dr. Reuss (*Jour. de Thérapeutique de Gubler*) does not desire to make creasote an universal panacea in phthisis, but he believes that, administered in an inoffensive form, it may render great services. The formula which he employs is the following:—

| | |
|---|---|
| Pure balsam of tolu..... | 0.20 |
| Pure beach creosate..... | 0.05 |
| Excipient ..... | q.s. |

He gives this preparation in the form of *dragées*, or capsules, and orders two in the morning and two at night, gradually increasing the dose up to ten per day. He concludes his interesting monograph by declaring with MM. Bouchard and Gimbert that creosate does not *cure* phthisis, but that it produces a modification of the diseased lung the anatomical characters of which we are not at present in a position to appreciate.—*Gaz. Méd. de Strasbourg.*

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### Solutions of Ergotine for Hypodermic Injection—(These Besnard.)

(1) Ergotine, 2 grammes (ʒss); water, 15 grammes; glycerine, 2 grammes (Hildebrandt.)

(2) Ergotine, 2 grammes; water, 15 grammes; glycerine, 15 grammes (Moutard-Martin); 1 gramme of this solution contains 0.666 mill. of ergotine, and is equivalent to 0.50 of ergotine.

(3) Ergotine, 2 grammes; water, 30 grammes (Bucquoy.)

(4) Yvon's extract of ergot, 1 gramme, 20; water, 8 grammes, 80 (Dujardin Beaumets). A strong solution double the strength of the preceding.

Yvon's extract is recommended for its inalterability, and because each gramme corresponds to one gramme of ergots.—*Le Progrès Medical.*

### Selerema or Algide Œdema of the New-Born.

This affection occurs between the first and the eighth day after birth, and attack especially children debilitated from any cause (disease, defective alimentation, or absence of maternal hygiene), or those who are born before time. It commences on the hands, the feet, or the face, the skin becomes violet, yellowish, the child cries weakly and succumbs between the second and eighth day, from pulmonary congestion or pneumonia. Out of twenty-nine children untreated M. Roger has observed only two recoveries. A rational treatment justifies the hope of more. The characteristic of this affection is an extraordinary lowering of the body temperature of the child. It falls lower than in cholera, and even that observed in ten or fifteen hours after death, notwithstanding the thoracic complications which ordinarily occur *in extremis*. Other affections which depress animal temperature, infantile cholera for example, scarcely carry it to 35° in place 37° the normal state. In selerema or the algide œdema of the new-born, on the contrary, M. Roger has found in the axilla a mean of 31°; out of 52 cases, 19 time it was 33°; 7 times 26°; and he has met with the extremes ot 25°, and even 22°. Taking the temperature in the rectum, M. Parrot has arrived at the same result, which proves that the depression of temperature is the chief point to combat. With this object Dr. Chossat has tried, in the beginning, cold affusions, so as to awaken the functions of the skin, but only if the depression of temperature is still inconsiderable, for reaction is of course necessary. Later, all means of excitation of the cutaneous surface should be employed: fomentations, frictions, envelopment in hot coverings, and hot sand-bags placed in the bed of the little patient, etc. By means of this treatment, out of six cases Dr. Chossat has saved three.—*Le Praticien.*

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Canadians in England.—J. C. Cleaver, of Carleton; J. Bowring Lawford, M.D., McGill; and William H. Henderson, M.D., Kingston, have been admitted members of the Royal College of Surgeons, England.

## Formularies.

### Solubility of Quinine Salts.

| | | | |
|---|---|---|---|
| Quinine sulphate | dissolves in | 100 | parts of water. |
| " bisulphate | " | 10 | " |
| " muriate | " | 24 | " |
| " bromide | " | 50 | " |
| " hypophosph. | " | 60 | " |
| " valerainate | " | 110 | " |
| " tannate | " | 500 | " |

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### Hair Tonic.

| | |
|---|---|
| Hoffmann's balsamic mixture... | 25 parts. |
| Glycerine ..... | 25 " |
| Rose water ..... | 100 " |
| Tinct. canthárid ..... | 4 " |
| Carbonate of ammonia..... | 5 " |

Shake well and filter after one hour. Rub well in once a day.

*Hoffmann's Balsamic Mixture* is composed of the oils of lavendar, cloves, cassia, thyme-lemon, mace, and neroli, of each four parts; balsam of Peru, twelve parts, and alcohol 1,000 part. It is also called *Hoffmann's Balsam of Life.—Druggist Circular.*

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Remedy for Cold Feet.—The Russians have, it appears, a most simple and efficient remedy for cold feet. It consists in enveloping the foot, outside the stocking, in a large piece of paper before putting on the boot. The air being excluded, cold is absolutely avoided. It would appear that the *belles élégantes* of St. Petersburg do not disdain to employ this precaution, but envelope the foot and leg high up.—(*Lancette Belge*).—*Gazette des Hôpitaux.*

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Chorea—Treatment by Hypodermic Injection of Arsenic.—Dr. Wm. A. Hammond employs Fowler's solution of arsenic hypodermically in obstinate cases of chorea. He selects the front of the fore-arm as the most suitable place, and injects into the cellular tissue. The dose should be diluted with an equal quantity of water or glycerine. Larger doses may be given than are tolerated by the stomach. He has even given thirty-five drops as an initial dose without unpleasant symptoms following. Marked improvement has frequently followed a single injection.

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

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

TORONTO, JANUARY, 1880.

☞ HAPPY NEW YEAR.—We hope our subscribers will not wait to receive their bills, which will be enclosed next month. Many of our friends have already been frequently reminded of their arrears, and should remit at once.

## TRINITY COLLEGE MEDICAL SCHOOL ANNUAL DINNER.

The Third Annual Dinner of the Students of Trinity College Medical School took place on the evening of December 5th, and was largely attended by guests, graduates, and students. Among the guests were Drs. Geikie, Aikins, O'Reilly, Graham, Covernton, McDonald (of Hamilton), Justice Cameron, Goldwin Smith, Dr. Pyne, and others. Mr Black in the chair, and Messrs. Brett and Urquhart, as vice-chairmen, fulfilled their duties admirably. The proceedings were enlivened by music at intervals. Mr. Irish, of the Rossin, provided, as usual, in his excellent manner. After reading letters of apology, the usual loyal toasts were given. For the "Legislatures," Dr. D. Clark replied, and was, as might be expected, sound in his remarks on medical legislation concerning Canada. Mayor Beaty spoke for "The City of Toronto," and regretted the absence of a medical man in the Council.

Mr. Urquhart, the second Vice-President, proposed "The Learned Professions."

Mr. Goldwin Smith responded. Although he was a votary of learning, he had never had a profession. He had learned a little of law, but not enough to do him any harm, or to enable him to do any harm to his neighbours. (Laughter.) There was only one way in which he could claim to be a professional man, and that was in the respect alluded to by the old sage who had left us the adage that a man at forty is either a fool or his own physician. (Laughter.) He supposed a man exceptionally gifted might be both. (Renewed laughter.) Not being exceptionally gifted, and having arrived at the age of forty, he hoped he was his own physician; not that he would "quack" himself, for when his time came, he meant to go out of the world *secundum artem*, and by the hands of a learned professor. (Laughter.) Quacks obtained a great deal of sympathy from the masses, who commonly regarded them as persecuted men of genius—and indeed they did frequently fall under the persecution of the police. (Hear, hear, and laughter.) People would do for a quack often what they would not do for the regular physician. They would obey a quack, in whose words they fancied there was some magic, when they would not obey the regular physician, in whose words they thought there was no magic. There was no body of men—and he made no exception—to whom the world owed greater gratitude than it did to physicians. (Applause.) There was no body of men from whom society received so much, and to whom it paid so little. Might the medical profession in Canada grow in honour and usefulness, in science and beneficence, and in the gratitude of mankind. (Applause.)

Mr. Justice Cameron, in replying on behalf of "The Legal Profession," said he had always held the opinion that it was unfortunate that we had so many universities as we have, and that if we had a greater number of colleges and only one university it might be better for us. (Hear, hear, and applause.) He pointed out that this country, though now robust and able to stand alone, had been nursed in its infancy by the Mother Country at great expense, and, therefore, when the Mother Country chose by its legislation to say that the rights of a man who had attained a certain position in education there ought to be respected all over the world, we, as subjects of the land, ought to hesitate before we said that the Mother Country had been doing an injustice. If they

thought a man's education in England was not sufficient, then they would be right in saying that he should not be registered here; but they should be able to say that we who claimed to be on a level in matters of medical education with Great Britain expected that if her sons came to practise here we should have reciprocity, and be allowed to practise there. (Applause.)

Rev. W. S. Rainsford replied for "The Clergy."

Mr. Vankoughnet returned thanks on behalf of "The Bar."

"The Universities with which we are affiliated and sister institutions" was the next toast.

Rev. J. Langtry replied on behalf of Trinity University. After Dr. Geikie, he had the vanity to think he had more to do with the establishment of Trinity College Medical School than anybody else. (Applause.) He did not mean to say that he had done the work, but he had pulled the wires while Dr. Geikie had done the work. He trusted that the bonds between the School and the College would every year become more closely drawn. (Applause.)

Prof. Croft, on behalf of the University of Toronto, observed that there was some improvements which he would yet like to see effected in that institution, among which were the establishment of the degree "Bachelor of Science," and the abolition of the regulation which prevented members of the Senate from becoming examiners.

Mr. Shaw replied on behalf of the University of Halifax, and Mr. Ferguson for the University of Manitoba.

Dr. Geikie, in replying to the toast of the "Trinity Medical School," said that it was never more prosperous or numerously attended than at present, and this was due to the students themselves and to the faculty of past years. The General Hospital, which is now in a better condition than at any previous period, had been a great aid to the School, and their thanks were due especially to Dr. O'Reilly and the trustees of the Hospital for many kindnesses. He commended the single portal system for entrance to the medical profession, as affording a better guarantee than any other of efficiency in the profession.

Dr. Aikins then spoke for the Toronto Medical School. He also expressed himself in favour of many colleges but one university, which would raise the standard of education, create a healthy rivalry, and result in our degrees being respected abroad. Regarding the question of medical reciprocity between England and Canada, he said that if all those sent out from England were men of high attainments they would not object. But it was a fact that the British Medical Council itself had long been struggling for a central system of examination, because it had no confidence in the twelve or twenty institutions which had now the privilege of registration. It would not be fair to refuse to accept the degrees of our own universities, and welcome graduates from English universities. This winter there were between 250 and 300 medical students in Toronto, where he supposed three-fourths of the medical men of Ontario were educated, and it was therefore in the public interest that medical men sent out from this city should be highly qualified. In order to this end, the Government ought to increase its assistance to the Hospital so that outside patients should not be prevented from coming here.

"The College of Physicians and Surgeons" was replied to by Dr. McDonald, of Hamilton; and "The General Hospital and Trustees," by Dr. O'Reilly and Mayor Beaty.

The toasts of "Graduates and Undergraduates," "The Ladies," and "The Press," were afterwards duly honoured.

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## MEDICAL COUNCIL ELECTIONS.

The elections for the Ontario Medical Council take place on the Second Tuesday in June, 1880. Members should make it their business to see that capable and energetic men are nominated and elected. Present members seeking re-election should be judged by their record during the past five years, and all who have been derelict in their duty should be left at home. There are some good men on the Board, who, both for their experience and abilities to serve the profession well, ought to be returned; but there are others whom we should be very sorry to see re-elected. There are no local or sectarian ends to be served, and no pledges should be demanded from candidates other than that they will energetically, economically and faithfully work in the cause of higher medical education in this Province. We hope no one will be so foolish as to advocate increased territorial representation, which will merely increase expense without adding to the efficiency of the Council. Granted that the Homœopathics are represented by more members than their numbers entitle them to, the evil will only be increased by a larger territorial representation. The plea that the school men are too many is, to say the least, a silly one. None better than those actively engaged in teaching know how to advance the cause of higher education, and we are certain that they have no other interests to serve.

HIGHER MEDICAL EDUCATION IN THE UNITED STATES.—It is gratifying to notice that at last our neighbours across the line are awakening to a knowledge of the fact that their system of medical education is not what it ought to be. Harvard University, some years ago, adopted the graded system, and lengthened the period of study required for graduation in medicine. Syracuse University, the Chicago Medical College, Jefferson, Bellevue, the University of Michigan, Detroit Medical College, and one of the St. Louis Colleges have followed their good example. Doubtless all medical schools in the States will soon be compelled to do likewise. Even a three years' course is far too short, and we trust soon to see a period of study of at least four years required by all the graduating bodies in the States.

PROTECTION.—We regret to hear so often the complaint by medical men that the Ontario Medical Council does not protect *them* from quacks. It is high time that everyone should know that the Council exists to protect the public from unqualified practitioners. If it existed merely for the benefit of its members, we should advocate its abolition. Physicians can protect themselves by acquiring a thorough knowledge of medicine, and showing the public that they have it.

JOHNSTON'S FLUID BEEF.—This preparation of animal as food now so well known both in Europe and America contains the nutritive properties of beef in a concentrated form, the albuminous and extractive matter being combined. It has received the approbation of the most eminent physicians and chemists everywhere.

TORONTO GENERAL HOSPITAL.—The subscribers to the funds of the Toronto General Hospital have re-elected Mr. Walter S. Lee as their Trustee for the ensuing year.

JOURNALISTIC.—We have received No. 1, vol. i., of the *Chicago Medical Gazette*, published on the 5th and 20th of each month. Dr. E. C. Dudley, editor. Terms, $2 a year.

CANADIAN EXTRACT OF MALT.—As will be seen by advertisement, Dr. Day, of Kingston, is manufacturing an Extract of Malt.

CHEAPEST AND BEST.—The Montreal daily *Witness* is mailed to all its subscribers in America at less than a cent a day. It is the best cent newspaper in the world, giving all the latest news by telegraph, editorials on the most important questions, a comprehensive correspondence column, a valuable department devoted to the contemporary press, home and religious reading, a weekly summary of the new books and magazines—in fact, each number is the world's history for a day. Price, including postage, $3.00 a year. Sample copy sent free on application.— JOHN DOUGALL & SON, Publishers, Montreal.

## Book Notices.

*Ninety-seventh Annual Catalogue of the Medical School* (Boston) *of Harvard University*, 1879-80.

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*The Physician's Visiting List for* 1880. Twenty-ninth year of its publication. Philadelphia: Lindsay & Blakiston. As usual, very good.

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*Some Important Topical Remedies and their use in the Treatment of Skin Diseases.* By JOHN V. SHOEMAKER, A.M., M.D., Philadelphia.

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*Œsophagismus;* with remarks on the subject by J. J. Henna, M.D. Reprinted from *The Hospital Gazette*, October 18th, 1879. New York: Charles L. Bermingham & Co.

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*A Text Book on Physiology.* By MICHAEL FOSTER, M.A., M.D., F.R.S. Third edition, Revised. London and New York: Macmillan & Co., 1879. Toronto: Willing & Williamson. Price, $3.50, cloth; $4.50, sheep.

This work, which is issued in advance of a cheap student's edition, to be ready shortly, will be noticed in our next issue.

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*An Examination of the usual signs of Dislocation of the Hip; also an Enquiry into the Proper Mode of Procedure when Dislocation of the Hip is accompanied with Fracture of the Femur.* By OSCAR H. ALLIS, M.D. From the Transactions of the Medical Society of Pennsylvania for 1879.

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*Advice to a Wife on the Management of her Own Health*, etc.

*Advice to a Mother on the Management of her Children*, etc. By PYE HENRY CHAVASSE. Toronto: Willing and Williamson.

These little books are addressed to the wives and mothers of England. They contain much information and many important truths, which are brought to the notice of the young wife and mother in a hortatory manner which compels attention. The popular character of the books is well attested by the fact that one has reached its thirteenth, and the other its twelfth edition, in the short space of three years. The subject matter is frequently interspersed with Shakespearean and other poetical quotations, aptly introduced.

Advice to a Wife begins with a long introductory chapter relating to the dress, exercise, sleep and habits of the wife. The remainder of the work is divided into four parts, treating respectively of Menstruation, Pregnancy, Labour and Suckling. Many useful hints are given that a wife would do well to follow. The language is plain, being freed from technical terms. In all difficult or doubtful cases a medical man's advice is at once to be obtained.

Advice to a Mother is divided into three parts:—1. Infancy; 2. Childhood; 3. Boyhood and Girlhood. The advice is put into the colloquial form. The author is evidently of the opinion that "Cleanliness is next to Godliness;" and his directions with regard to the ablutions are detailed at some length. Four things are considered as essentially necessary for the well-doing of the infant—plenty of water, milk, air and sleep. In "Pye Chavasse's Fresh Air Treatment of Scarlet Fever," we think that the author claims too much for himself. In medical and surgical emergencies, the directions are concise: 1. Send for a medical man; 2. Do what he tells you.

On the Education of Children one remark we deem well worthy of quotation—"You ought, in the education of your daughters, to remember that they, in a few years, will be the wives and the mothers of England," and therefore some of the duties they will have to perform, and some of the burdens they will have to bear, should thus early be inculcated.

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*The Skin and its Troubles.* New York: D. Appleton & Co., 1879. Toronto: Hart & Rawlinson.

This little *brochure* of some ninety sedecimo pages is presumably from the pen of the late Dr. Tilbury Fox, and constitutes No. 7 in the English series of Health Primers. The introductory chapter is devoted to setting forth the importance of the skin as an organ of many functions in the animal economy, and pointing

out the baneful effects on the general system of uncleanliness and other deleterious influences affecting this widespread tissue. We think it might have been advantageously pointed out that the mucous membranes are but modified continuations of this structure, and amenable to the same general principles and laws. Chapters II. and III. are devoted to short disquisitions upon the structure and functions of the skin respectively, and Chapter IV. points out their "practical applications to the conditions of daily life." It is well that the public should be fully impressed with the creed that not only is cleanliness "next to godliness," but that it is, as under the old Mosaic dispensation, an essential part thereof. A valuable chapter follows, numbered V., dealing with "skin troubles," from poisonous clothing, the injudicious use of domestic remedies (notably arnica), and cosmetics. The knowledge herein contained cannot be too widely diffused for the public good. The hair and its ordinary management form the subject of the last two chapters, which will serve to vulgarise a good deal of much-needed information on this topic. We cannot, however, agree in the view that the hair, under ordinary circumstances, has any need of artificial lubrication, and we are more in favour of the brush and comb than of frequent ablutions with water as a detergent for that ornament and protection of the head. The insertion of formulæ and the recommendation of remedies we do not think commendable in this chapter, and we must also take exception to the following passage on page 91: "For further details we must refer the reader to special treatises on ringworm and skin diseases." The only referee for the lay reader—to whom alone the remark is applicable—to consult should be the family physician.

Dr. W. H. Pike, of Oxford University, has been appointed to the Chair of Chemistry in University College, Toronto, vice Professor Croft, resigned.

Injection of Lime-water as a solvent for blood clots in the bladder, is recommended by Dr. J. H. Ledlie in the St. Louis *Clinical Record.*

## Meetings of Medical Societies.

### TORONTO MEDICAL SOCIETY.

The Society met Nov. 6th; the President, Dr. Workman, in the chair. Dr. Graham presented heart, kidneys, and portion of liver taken from a patient who died in the General Hospital. A. C., female, aged 53, married, 9 children, family history good, healthy until last three years. Lately has been troubled with palpitation, shortness of breath, and swelling of the legs. Admitted Oct. 20th. Has general dropsy, resp. 32, pulse 140-160, weak, urine scanty and high-coloured, containing urates and phosphates but no albumen, heart pushed to left side, blowing systolic murmur sometimes heard at apex. Patient too weak for thorough examination. Died Nov. 1st, P.M. Nov. 2nd. Fluid found in right pleura, lower part of right lung carnified, heart enlarged—weighing 12oz., left auricle dilated—capacity 4oz., auriculo-ventricular opening contracted, hole found in one of the mitral valves, liver enlarged, spleen enlarged and congested, kidneys granular, contracted.

Dr. Oldright presented a very large cyst-wall removed from a boy aged 4. It had been situated over the scapula.

Also a patient, a boy aged 12, first seen 8½ years ago. He then had an attack of acute bronchitis. Pleural complications arose and empyema resulted; was tapped in June '71, about 12oz. of pus taken away. The cavity filled again in a few days; was tapped a second time in August, and a third time a few weeks after. The cavity was regularly washed out after the third tapping, every day for nine months, with carbolized water, on the syphon principle, by means of a rubber tube, which had been pushed into cavity through the canula and retained there, being rolled up in a coil after each washing, and fastened to side of chest by adhesive plaster. The patient was examined by the members present, and the lung found to have recovered its normal condition. Measurements showed the right side of chest to be one half inch larger than the left, and the expansion on forced inspiration was equal on the two sides. While washing

the pleura the cavity had gradually become smaller, and finally the external wound healed permanently.

Dr. McFarlane reported two cases of poisoning by seeds of datura stramonium. The symptoms were delirium, jactitation, and dilatation of the pupils. Cause unknown at the time, but it was afterwards discovered that the children had been eating stramonium seeds found in the garden. Treatment: Emetics and small doses of opium. The patients recovered.

Dr. Graham reported a case of recto-vesical fistula. A. B., male, aged 43, first seen June '79. Had been ill since September '78 from diarrhœa, and had lost 50lbs. in weight. Lately noticed that he frequently passed gas from the penis. Urine: sp. gr. 1015, contained albumen, pus, mucus, and urates. Seen again Oct. 28th. The patient first noticed in July fecal matter passing through the urethra. The bladder is at times distended with gas, which he is able to pass at will. Still has diarrhœa; is going into hospital for further examination and treatment.

Dr. Graham then read a paper on Morphœa, in which he gave a history of a case at present under his care, with some general remarks on the subject.

At a meeting of the Society, Nov. 20th, '79, Dr. Zimmerman presented pharynx, larynx, trachea, and lungs, taken from a patient who died from diphtheria. The specimen showed a diphtheritic membrane extending from pharynx through larynx, trachea, and into smaller bronchial tubes.

Dr. Wilson gave history of an obscure case in practice, and then read a paper on "Anæmia," in which he described Simple Anæmia, Pernicious Anæmia, and Chlorosis. A discussion followed.

Dr. Riddel then read a paper on "Small Pox in Ontario," being a continuation of a paper read before the Society June 26th, 1879.

Meeting of Society Dec. 4th.

Dr. Zimmerman presented kidneys and bladder. The right kidney was scrofulous, containing numerous sacculi filled with pus and cheesy matter—the left showed commencing inflammation. There were the usual appearances of inflammation of the bladder.

Dr. Temple reported a case in practice. Mrs. A., aged 45, after slight exposure to cold two years ago, was suddenly seized with very severe pain in the region of the right kidney, followed in a few hours by a discharge of pus with a little blood. The pain lasted two or three days, and about 5oz. or 6oz. of pus was passed during this time. These attacks recurred every three or four months. During the intervals between the paroxysms there was no pain, no irritability of bladder, the urine was clear, but at times very fœtid. There was, however, always tenderness over the kidney. The general appearance of the patient was healthy. Diagnosis, Abscess of Kidney.

Dr. Zimmerman thought it might be due to calculus, causing pyelitis; the pus being retained for a time, and finally forcing its way past the calculus.

Dr. Cameron thought the symptoms pointed to tuberculous kidney.

Dr. Graham presented a heart showing dilatation. It weighed 24oz., taken from male aged 40. The pericardium contained some fluid, and the lungs numerous apoplectic clots. The dilatation of the heart was probably due to the atheromatous condition of the arteries.

Dr. Fulton presented a polypoid fibroma, about as large as a cricket ball, which had been attached by a pedicle about one inch in diameter to the internal surface of the bladder, on the anterior portion. It had caused retention of urine, attended with great pain and straining. Ulceration occurred in upper portion, eating through the wall of the bladder. Death ensued from exhaustion. The patient was a child aged 8 years.

The President read a translation of an interesting case in Buenos Ayres of lymphadenoma removed from left side of neck in a boy aged 10.

Dr. Temple then read a paper on "The Use of the Long Forceps," in which he discussed the use of the instrument under various circumstances as compared with its alternatives. He analysed the report of Dr. Johnston, Master of the Rotunda from 1868 to 1875, given before the Obstetric Society of Dublin in 1878, showing the frequency with which he had used the

forceps during his term (1 in 10½ cases), including 169 cases in which the os was not fully dilated, and head was at or above the brim. Dr. Temple showed the good results from the use of the instrument in his practice, both to mothers and children; but thought that caution and care should be exercised in undertaking "the high operation," especially by unskilled obstetricians. He considered, however, that in properly chosen cases it was preferable to any of its alternatives.

The President, Drs. Fulton, Cameron, A. H. Wright and several other members joined in a discussion on the subject, which was closed by a reply from Dr Temple.

At a meeting Dec. 18th, Dr. Oldright showed some specimens which had been kept in the new German preserving fluid—the lungs of a sheep for four weeks, and a piece of beef six weeks. They were in a good state of preservation, retaining their colour, and were not hardened. (The composition of the fluid is given in another column of this issue.)

Dr. Grasett presented spinal cord and rectum taken from a patient who had died in the Hospital. Unable to get a complete history, but found that the patient, after an exposure to wet and cold a few months ago, was suddenly seized with paraplegia, with its ordinary symptoms. Tenderness existed at one point in spine. Diagnosis, Spinal Meningitis with perhaps Myelitis. The cord showed thickening of membranes and substance at point where tenderness had existed during life. The rectum was much reduced in size throughout its whole extent; no cause discovered.

Dr. White reported a case in practice—A boy aged 16, very weak and anæmic, subject to self-abuse, had ankylosis of left hip-joint, contraction of the adductor muscles, drawing one thigh across the other. Treatment: cutting the tendons of adductor longus, semimembranosus, semitendinosus, and finally that of the biceps, and keeping the patient in a case for a time. This was done last spring. The deformity was removed, and the general health improved for a time; but he is failing again, and not likely to live many months.

Dr. Grasett reported a case somewhat similar, but occurring in a vigorous, healthy boy. The lower limbs were crossed by the contraction the adductors, and the tendons having been the boy is improving rapidly, and is now nearly his normal healthy condition. The b was a masturbator, but the doctor couldn't whether this was the cause or not.

Dr. C. K. Clark, of the Toronto Asylum, th read a paper on Epilepsy, treating principa of the disease as observed by him among lun tics. He gave histories of a number of in resting cases which had come under his o observation, and described symptoms, treatmen and post-mortem appearances.

## Miscellaneous.

CANADIANS IN ENGLAND.—T. H. Ashb M.B., Toronto; F. S. Greenwood, M.D McGill, and J. W. Wright, M.D., McGill, ha been admitted Licentiates of the Royal Colle of Physicians of London.

HÆMORRHOIDS—METHOD OF CONTROLLIN HÆMORRHAGE.—Take a cone-shaped piece sponge and make it hollow; then pass a thre from the inside through the side of the sponge over the apex of the cone, and return it to th cavity in the sponge. It is then to be slightl moistened, compressed, and pushed up as hig as possible in the rectum on the tip of the finger Pieces of lint are then to be carried in unt the cavity in the sponge is filled. As soon filled, traction is to be made on the string when the sponge will spread out and pres against the side of the rectum. In this wa flow of blood upwards is prevented. Thi place a large piece of oiled lint over the ano and cleft of the nates, pack the cleft with cotton and secure over it by a T-bandage a compres The sponge may be left thirty-six or forty-eigh hours.—*New York Medical Record.*

## Births, Marriages, and Deaths.

MARRIED.

At Oshawa, on Nov. 13th, J. C. Ray, M. D., Sunderland, to Ellen, fourth daughter of John Hyland Esq., of Oshawa.

DIED.

At Toronto, on Nov. 26th, Dr. D. J. Pollock.

At Collingwood, on Nov. 28th, Dr. Moberley, aged 3

At Flint, Michigan, on Nov. 23rd, Joseph C. Smal brother of Dr. Small, of Toronto.

On November 24th, at 174 Simcoe Street, Toronto Captain Robert Henry Russell, father of J. B. Russell M.D.