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THE
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Original Communications.

CAPSICUM IN DELIRIUM TREMENS.

Having noticed the use of capsicum in delirium tremens, I resolved to try it in cases just a stage short of actual delirium. The more so because the few cases, occurring in my practice, treated in the usual routine method, proved quite unsatisfactory. A constant prudential fear of the toxic effects of large doses of opiates on the one hand, and excessive prostration by depressants on the other, provoked perhaps over-cautiousness, and therefore the critical sleep appeared always too tardy in its approach, giving great anxiety to myself, the patient, and his friends. The two cases here recorded speak for themselves.

Mr. S., age 25, had been on a debauch for several days. I saw him on the 4th inst; he had not slept for a couple of nights; headache, watchfulness, fear, tremors, eyes restless, pulso rapid, indeed a victim of pity. I ordered him *R capsici grs. xl., saponis q. s. misce; divide in pill viij.* Take four immediately, and repeat the dose in four hours, unless sleep interrones. Next morning he went on his way rejoicing; he was a traveller.

CASE 2.—J. C., aged about 35, had been drinking for three weeks in succession, until the brain became emphatically intoxicated; he had not slept for many-six hours, at which time

excessive and continuous vomiting occurred, producing severe prostration, Opium in large doses—fifty drops of the tincture—were given, but the stomach instantly ejected it. My aid was now solicited. I sent him effervescent powders, hoping thereby to allay the emesis, also opium in pill form, two grain doses, all were fruitless.

I was now sent for, and I found the patient with all the symptoms noted in the previous case fearfully exaggerated, tremors so excessive, that every muscle seemed to play truant, his fear amounted to horror, he plead not to be left alone, perspiration profuse, emesis unremitting, medicine, water, fluid or solid were alike expelled. I ordered him the same as case first, and was fearful lest that, too, would meet with the same fate and be expelled. I remained with him, engaging his mind in conversation, in fifteen minutes an improvement was noticed, in thirty minutes a general warmth in the stomach assured me of the characteristic action of the drug. In two hours I felt satisfied, it was acting like a charm. emesis ceased, nothing but a little nausea remaining, patient more quiet, but complained of extreme thirst. I withheld fluids of every description for an hour, at which time he took water—a tumbler full, it nearly cost him a return of vomiting. I now left him, and ordered the second dose in two hours, unless sleep intervened. I saw him early in the morning, he had continued to improve, and, after the second dose, had slept considerably. The patient was rapidly recovering his normal status.

It will be noticed in this case that it had a prompt effect on the vomiting, and a very early calmative effect on the nervous centres implicated.

I will not at present speculate on the physiological action of the drug, this is a subject for the savans of the profession to determine. Whatever be its *modus operandi*, the results are unquestionable, and would certainly recommend its use in similar, as well as more aggravated cases.

W. S. C.

Flesherton, Sept. 20, 1870.

ABSENCE OF THE EXTERNAL ORGANS OF GENERATION—PROBABLY ALSO OF THE UTERUS AND ITS APPENDAGES IN A YOUNG LADY.

BY P. CONSTANTINIDES, M.D., M.R.C.S., TORONTO.

The patient, a delicate looking little girl was brought to me for advice about four years ago. A few months previous to her application she took a severe cold, and ever since she had been suffering from a hacking cough, shortness of breath, and constantly increasing general debility.

The first point of interest which her case presented and which somewhat perplexed me, was the mention of her age, for while her aunt, who brought her to me positively asserted that "Nellie" was several months past her *seventeenth* year, she certainly did not appear to me that she could possibly be, at the outside, much over *ten* years of age, and my surprise was greatly increased when, while sounding her lungs, I observed that not only her mammae were wholly undeveloped, but also the areolae and the nipples appeared extremely diminutive and rudimental. A careful examination of her chest revealed extensive lesions all over the upper half of her left lung. I prescribed for her the hypophosphites, a generous diet, and above all abundance of sunlight and pure air. Under this treatment she soon began evidently to improve, and, being near the early part of the summer, in order to give her every opportunity for recovery, her friends took her away to the country. Up to this time although more than seventeen years of age, she had never menstruated.

I had never seen or heard anything more of my little patient for fully three years, when I was called one evening to see her in her bed. She had recently returned from the country, where she had been living more or less during all this time in comparative good health, although her cough had not entirely left her, and, to use her aunt's words, "she had never been yet like other girls of her age." She was now suffering from a severe attack of dysentery, which in addition to her other troubles helped to prostrate her very low. The constant tenosmus and the great irritation in the lower part of her

rectum gave rise to extensive hemorrhoidal tumors around the anal orifice, which had ulcerated, and caused her great distress. While engaged in examining these parts, I was surprised to discover that my patient was indeed not like other girls in more than one respect. She hardly presented any traces of the external genitals. No labia were to be seen, no nymphæ, no vagina, no clitoris, no mons, in short no appearance whatever even of the very rudiments of the external organs of generation. A slight crease about one inch in length and a few lines deep, covered with a roughened sort of mucuous membrane having much the character of the adjoining epidermis over the perineum occupied the place of the vulva. In the centre of this, a small opening indicated the orifice of the urethra through which a female catheter which I introduced passed directly into the bladder.

Although it was more than three years since I had seen her last, and she was now past her twenty-first year, her sexual system was wholly undeveloped, and she looked and acted in all respects like a child.

Her dysentery was easily relieved, the hemorrhoids alleviated, her general health considerably improved, and ere long she was enabled again to sit up in her easy chair, and to amuse herself with books and fancy work, and she spent the days of her confinement in comparative comfort, yet it was evident her decline slowly and steadily gained the ascendancy, and she gradually wasted away and died in her twenty-second year with all the symptoms of pulmonary phthisis.

On her death, I entreated her friends to allow a post-mortem and to let me have an autopsy of, at least, the contents of her pelvis, but the same morbid delicacy, which against all my urgent and incessant requests, prompted them to refuse any other medical man to be a witness of her deformity during her life, led them also to kindly yet decidedly refuse my request at the end.

PROF. GUNNING S. BEDFORD, M. D., died in New York, on the 6th of September, at the age of sixty-four years. He had long been an invalid, having been attacked with hemiplegia in 1864, while in the midst of an active practice, and since then he had three or four other attacks.

INGUINAL HERNIA—REDUCTION IN THE ERECT POSTURE

BY WILLIAM COEACHY, M.D., IONA, ONT.

Mr. H—, aged 35, called me in the evening of the 19th to prescribe for a "cold" which he alleged had settled in his bowels. He had been teaming grain and returning late without sufficient clothing, had apparently contracted the present disorder.

I gave him an anodyne diaphoretic to be followed in the morning by a purgative draught.—20th Abatement of fever, pulse natural, no movement of the bowels. Symptoms, however, somewhat puzzling, pain localized. Made careful exploration of the inguinal canal, and *felt* something abnormal around the ring on the right side. Gave, nevertheless a pill of opium and blue mass, to be followed up as before and hinted to patient the possibility of a partial rupture. Made arrangements to call next morning, but was suddenly summoned in the night. Distinct symptoms of peritonitis, vomiting pathognomonic posture, and a countenance expressive of great anxiety—cough. A glance at the parts gave ocular proof of a complete hernia about the size and shape of a small tomato. Told my patient his condition, and immediately ordered a large enema containing one drachm of laudanum.

The moment of its action, I placed him in the approved position, and set about the returning of the bowel. It was plainly strangulated. Enema came away in the midst of procedures, with a small quantity of fecal matter the first for four or five days. Laboured patiently and anxiously for an hour and a half, but with hopeless progress.

Was debating in my own mind the propriety of calling immediate counsel, and proceed to relieve with the knife. Next resolved to give chloroform a fair trial, and in case of failure, act according to circumstances. Suddenly bethought myself of attempting reduction in the erect posture—a method much spoken of in the Medical Press. Accordingly, I made my patient stand perfectly erect with knees in apposition. Syncope supervening had to desist. Gave fifteen minutes rest, and recommenced attempts at reduction. Gave a little whiskey and ammonia.

After a short trial, was gratified with a material progress, and in less than three minutes heard the rumbling which accompanied a complete return of the bowel. Patient again fainted. Prescribed opium and complete rest.

I shall not follow the case further, but close with a few remarks :

Firstly.—Obstinate constipation, or complete occlusion, may sometimes be caused by a partial incarceration of a portion of an intestine, which neither digital examination nor any physical means can properly demonstrate. The extreme importance of a proper diagnosis in suspected cases need not be insisted on. This patient had taken for two or three days previous enormous doses of salts, but without any effect, - this I was not aware of at the time. I had a very interesting case of this kind some time ago, which terminated on the fourth day in complete relief, by spontaneous reduction.

Secondly.—Is the erect posture the proper one, or only accidentally advantageous? Might I presume to offer a theory to my medical brethren, which, in the absence of any other that I am aware of, may be thought worthy of some consideration?

I believe that the proper position, theoretically, for the reduction of a strangulated inguinal hernia, and in which alone the co-operation of dynamic agencies can be utilized, is the erect posture, with the flexure and adduction of the thigh.

The means to be used are obvious. If beforehand the colon be well evacuated, or as much so as possible, every rational preparatory condition will have been fulfilled. In the old position, but one force is brought to bear—the *pushing force* used by the operator, if I may so term it. By this method we have also a pulling force (*viz* a *fronte*), namely, the weight of a large portion of the bowel striving to drag the remainder from its posture of imprisonment. Why not, then invert the patient, and secure the action of this new force in a still greater degree? Simply this. The rhythmic action of the diaphragm forbids the continual operation of this force, and should it have any effect, it often leaves matters *in statu quo*, during its contraction. Besides the force here would generally be acting at an angle, the ring being the fixed point

Thirdly.—Many practical men prefer this method of reduction, without regard to theory.

THE OPENING OF THE MEDICAL DEPARTMENT OF
VICTORIA UNIVERSITY.

The proceedings attending the opening of this institution during the past week have been of unusual interest. The medical Alumni Association, consisting of the graduates in medicine, held its annual meeting, which was well attended, and at which several very interesting and instructive papers were read and discussed. The Alumni residing in Toronto availed themselves of the occasion to entertain their brethren from the country, with several other gentlemen. The supper was given at the Queen's, on Tuesday evening, the 4th inst. In compliance with the particular request of the committee of arrangements, the Dean of the Faculty, Dr. Canniff, occupied the chair, and Dr. Agnew the vice-chair. Among the guests were the Professors of the Medical Faculty, Dr. Hodgins, of the Education Department, W. W. Dean, Barrister, Belloville; Drs. McGuire and Tuck, of Guelph, Corbett, of Perrytown, and others. The object of the entertainment was to bring together in a social way the graduates, and to perpetuate the feelings of brotherhood formed while together as students. The speeches of the evening were marked by a spirit of fraternity, and devoted attachment to the *Alma Mater*. This rallying round the institution by graduates of all creeds, from different sections of the province must prove gratifying to the gentleman who has recently been called to preside over the Medical Department. Among the toasts of the evening was one to the late venerable Dean, the Hon. Dr. Rolph, to which Dr. Canniff was requested to respond. In doing so he expressed his sense of the honor conferred upon him by the committee in allowing him to respond. He referred to the many excellencies of the veteran teacher of medicine, whose ability to teach he had never seen equalled in the new or old world. He concluded by expressing not alone his personal regret but that of his colleagues, that the hope always entertained by them that Dr. Rolph should continue to hold, as long as he lived, his position of Dean, had been unfortunately destroyed.

The introductory to the course of Lectures was delivered on Wednesday evening by Prof. Barryman, at the College, Yorkville, to a large audience, composed of students and the general public.

The lecturer was introduced by the Dean, who in a few complimentary words, pointed to the fact that Dr. Berryman had been for thirteen years an honoured and successful teacher, and that his services had not been confined merely to lecturing in the winter, but that in season and out of season he had devoted his energies to the interests of the University, by discharging the onerous duties of Secretary, not in an intermitting way, but in summer as well as in winter. Moreover, as a representative to the Medical Council, he had rendered important services. The honoured gentleman held the assembly in unwearied attention while he delivered in his usual classic style, a very learned address upon the duties and responsibilities of the medical profession. At its close a vote of thanks was tendered to him. The Professors were present in their academic costume, and the proceedings generally were of the most interesting kind. On Friday evening Prof Sangster gave a public introductory to his course on Chemistry, which was largely attended. The lecture was characterized by great ability with a profound knowledge of modern science and medical lore.

We are glad to be able to state that a very large number of students have already registered, and that the prospects of the school are, if anything, better than at the same time last year. We see by our Hamilton exchanges that Dr. Mullin, who had been assigned an important branch in the College, was upon the occasion of his departure from Hamilton, entertained by the medical profession of that city to a complimentary dinner. The speakers, among whom was Dr. Ormiston, bore most eulogistic testimony to the worth of Dr. Mullin as a man, a physician, and a Christian.

QUANTITY OF CARBONIC ACID CONTAINED IN THE AIR OF SCHOOL ROOMS.—Dr Breiting (*Chem News*) made a series of fourteen experiments, beginning at 7 15 a m., and continued to 4 p.m., in a room of 250 or 261 cubic metres' capacity, and containing 64 chibon. The quantity of carbonic acid contained in the air of that room during these experiments varied from 2.21 to 9.36 per cent, while free open air contains four ten thousandths of that gas, and a quantity 1 per cent. of the same gas present in air is considered injurious to health.—*Medical and Surgical Report.*

Editorial.**OUR MEDICAL ETHICS.**

We have a code of medical ethics, compiled chiefly from American sources, which has been adopted by the Canada Medical Association, and is supposed to guide us in our conduct towards our patients the public, and our brother practitioners. Yet it must be acknowledged, however humiliating the confession, that the open and unblushing violation of all ethical considerations is as often the rule as the exception. In Great Britain there is no written code of ethics, but there is, what is far more effective, a public opinion both in the profession and out of it, which keeps everyone, except the very lowest, from any flagrant breach of courtesy. We however, can boast of a sublime disregard of our written code, while the public, by regarding our profession merely as a means of livelihood, sanctions in the prevailing spirit of the age, anything which savours of smartness.

Of course the peculiar manifestations of this evil depends upon locality and circumstances. In the cities, as a rule, people have some notion of professional etiquette, and flagrant breaches of it are comparatively rare. But then we have in every large town a class of people, well to do mechanics and small tradesmen, who have worked themselves up from nothing to their present positions. These men cannot understand that a professional visit, occupying perhaps a quarter of an hour, can possibly be worth a dollar, although they may be far better able to pay it than some struggling clerk, or needy gentleman, whose income is totally inadequate to his presumed position. On the other hand there are a large number of medical men, trying to struggle against enormous competition, into a practice sufficient to keep themselves and their families in comfort. Then what follows as a natural result? Dr X. gives it to be understood amongst a certain class, that his charge, after the first visit is only fifty cents, or even less. His practice increases rapidly, though he may have to work pretty hard for his money. Still he gets rich, while others go on year after year in comparative poverty. There is a great difference between this course, and that of merely moderating the charge to a person in poor cir-

cumstances. In the latter case the Doctor says, "My charge is always a dollar a visit, sometimes more. If I think you are not able to pay for every visit, I will make such a reduction as your circumstances warrant, but that is for me to decide." In the former case he says, "Come to me, my charges are small." The one relieves the really poor, the other the stingy. The one has the sanction of the highest members of the profession, both here and in England, the other is despised by every respectable practitioner.

In country practice we see the evil cropping up in even a worse form. The utter ignorance in a large proportion of the people, of the difference between a profession and a trade prevents their understanding the necessity, in the former, for a high and honourable course of action. They look upon medicine as an exact science, and consider a want of success as almost necessarily implying a want of skill. Of this ignorance an unscrupulous man is not slow to take advantage. He does not hesitate to spread reports to the detriment of his brother practitioner, and prides himself upon his highly professional conduct, if he happens to keep within the letter of the code, though he entirely disregard the spirit. It is not uncommon for differences of opinion in consultation, and errors, or supposed errors, of diagnosis, even when purely theoretical, and having no practical bearing on the case, to become village gossip. Dr. Y. having said to some of his friends, that poor Mrs. A. might have been alive now, if he had only been consulted in time. An excellent man Dr. Z., but a little old-fashioned now, scarcely knew what was the matter. All of this, told with an air of confidence, is in nine cases out of ten believed. The following, vouched for by a country practitioner with whom we are personally acquainted, shows how easily honest, simple-minded men, can be misled by a little bluster. An old farmer, speaking of a practitioner in his neighborhood, said, that in all the bad cases they had to go to him in the end, as he was by far the cleverest man in the country, and added in perfect sincerity, "It is true, for he told me so himself, and who ought to know better than him." How few of us have not been told by some gossiping woman, perhaps while attending some tedious case of labour, of the superior merits of Dr. So-and-So, which when analysed consisted merely of a pompous assumption of superiority, and unmeasured condemnation of everyone else.

"If you will throw that medicine out of the window, ma'am, and follow my directions exactly, I will save your child if it is not too late," is a favorite way, with gentlemen (?) of that class, undertaking a case previously treated by a brother practitioner. Such a policy, however, is short-sighted at the best, as an opportunity for retaliation must come, sooner or later, and the argument *post hoc, ergo propter hoc*, will be applied to the offenders first unsuccessful case by a host of indignant rivals.

Because we have written, as we feel, strongly, we do not wish our English and American brethren to conclude that such practices prevail almost universally among us, and that honourable professional conduct is the exception rather than the rule. But we do say that they are altogether too common, and, what is of more importance than their actual frequency, they do not meet with that condemnation from the body of the profession and the public, which they deserve, and until they do, they will always, to a greater or lesser extent be the curse of the Canadian profession. Our written code has proved powerless by itself, then let us resolve, not merely to carry it out ourselves but to unite in such a determined crusade against offenders, that self interest, which is the only way some men can be reached, will induce them to keep within such limits that our professional differences will cease to be the favorite theme for old women's gossip.

HAMILTON MEDICAL AND SURGICAL SOCIETY.

At the regular monthly meeting of the above Society, held at its room recently, among other business transacted, was the resignation of the Secretary, Dr. Mullin, whose retirement from the office is necessitated by his acceptance of a Professorship in the Victoria School of Medicine, Toronto. The following resolution in reference thereto was carried. It was moved by Dr. McKellean, seconded by Dr. McDonald, "That the Hamilton Medical and Surgical Society regrets to receive the resignation of the office of Secretary by Dr. Mullin, in consequence of his removal to Toronto, and in accepting the same, to convey to him their cordial thanks for the efficient manner in which he performed the duties of the office for several years, and they would

further express their wishes that his new sphere of duties may meet his highest expectations." It was then moved by Dr. Case, seconded by Dr. Geo. McKelcar, "That Dr. Chas. O'Reilly be elected Secretary and Treasurer of the Society, which office has been rendered vacant by the acceptance of Dr. Mullin's resignation."

TORONTO SCHOOL OF MEDICINE.

This institution opened its 28th session on 10th of October without any formal introductory, each lecturer going on with his regular work, making such introductory remarks as the character of his branch seemed to require. Several important changes and additions have been made in the *personnel* of its staff during the summer, but the arrangements made by this School for the delivery of regular clinical lectures on medicine and surgery at the Hospital, four times a week, by two such competent lecturers as Drs. Beaumont and Geikie, will, we have no doubt, give the highest degree of satisfaction to the profession and students of Ontario, and as the Hospital Trustees have generously aided as far as they could the perfecting of the arrangements, we take it as an acknowledgement on the part of both School and Hospital of the correctness of the position hitherto taken by this journal with regard to the importance of "clinical instruction." The students express the highest degree of satisfaction with all the changes made. The classes, we are told, are *generally* much larger than they have been other years at this time, while the numbers of fresh men entered are considerably in excess of previous years.

COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

MATRICULATION EXAMINATION, TORONTO, SEPTEMBER, 1870.

The following gentlemen have successfully passed the Matriculation Examination of the College of Physicians and Surgeons of Ontario:—

A. J. Campbell, R. W. Harlbert, T. W. Howard, Robert

Laton, George Shaw, Thomas Gilbert, Jorrolld Ball, Chester Caroy, Ephraim Hopkins, John S. Balmer, Duncan Cameron, C. E. Taylor, W. S. Stuart, Campbell Brown, S. E. Birsall, Anthony McGill, James Nowell, Andrew Luke, D. McFayden, K. H. Cameron, William Nichol.

Names of those gentlemen who recently passed the matriculation examination of the Medical Council held lately at Kingston, Ont.—Messrs. J. E. Eakins, E. O'Neill, J. Jones, J. W. Barton, M. J. Beeman, H. Brown, H. J. Hopkirk, G. Moore.

A FEW REMARKS ON THE PROPERTIES OF COD LIVER OIL AND THE HYPOPHOSPHITE OF LIME.

The efficacy of cod liver oil in the treatment of consumption, sub-acute and chronic bronchitis, in diseases of the skin, in scrofulous affections of the eyes and other important organs, as well as in debilitated conditions of the system in general, has already been established beyond all doubt, and even the most sceptical must admit that it is the only reliable remedy for the removal of tubercles from the various tissues, organs and glands, into which they have been deposited, and that it is also a safe and certain preventive in persons who may be hereditarily predisposed to their formation.

Physiologists and pathologists inform us that these tubercles are due to a deficiency of oil in the blood, and to altered *nervous action*, which produces deficient nutrition of the various organs, or defective assimilation of the articles taken into the stomach as food. These tubercles are observed at first as numerous small grey masses, about the size of a millet seed or pin's head, which may remain in a quiescent or latent condition for years without occasioning any very perceptible symptoms; nevertheless, they will assuredly, at some future time, soften or break down and produce irritation in the membrane which immediately surrounds them, causing ulceration, which, if not judiciously treated with appropriate remedies, will gradually spread till the whole lung or organ is involved and destroyed, when a fatal result must

ensue. However, in some rare cases, nature has been enabled to effect a spontaneous cure, especially in the case of pulmonary consumption, which is *only one* of the many affections that are due to the presence of these bodies, and which is at the same time one of the most common diseases met with in temperate climates.

When such spontaneous cures have occurred, it has been ascertained that the tubercles have been disposed of in one of three ways:

First,—either the whole of the tuberculous matter has been expectorated, or, Secondly,—that the tubercle has dried up or withered, that is to say, has become re-absorbed into the blood, or, Thirdly,—that it has become ossified or calcified, *i. e.*, converted into hard pieces, consisting of lime.

Such being the course adopted by nature to effect a cure in *Tuberculosis*, it only remains for us to furnish her with the sufficient and requisite material or pabulum to improve the quality of the blood, and to assist her in her exertions to throw off the morbid and irritating substance. These ends are, to a certain extent, accomplished by cod liver oil alone, yet in many cases even this valuable remedy has failed, in consequence of the defective power of assimilation of the food, or weakness of the digestive apparatus preventing the oil from being absorbed into the blood, and frequently the stomach and bowels are too weak to retain it, thence diarrhoea and vomiting follows its exhalation, in fact it then becomes an irritant itself, and nature endeavors to throw it off by these means. This want of tonicity in the digestive organs is due to diminished or weakened *nerve force*, and is counteracted by hypophosphate of lime, which was first brought into the notice of the medical profession by the celebrated Dr. Churchill, of Dublin, who states that the effects of this salt upon the tuberculous diathesis, disposition or constitution is immediate, all the general symptoms of the disease disappearing with a rapidity really marvellous. On the one hand, it increases the principle, whatever it may be, which constitutes *nerve force*, on which healthy nutrition depends, and on the other, it is a most powerful blood maker, being infinitely superior to any of the medicines of that class hitherto known." He also considers it to be a certain preventive against tuberculous formations or deposits.

From the foregoing remarks, it must be apparent to all, that the combination of two such efficient remedies must necessarily be considered as the most powerful preventivo and curative agent for consumption and other diseases arising from a similar condition of the blood, that has yet been offered to the public, and practical experience has fully confirmed the sanguine expectations of the inventors of this compound of cod liver oil and hypophosphate of lime.

Messrs. Dovins & Bolton, in offering this elegant preparation to the profession and to the public, beg to state that they have been enabled, by a new chemical process, (known only to themselves) which does not interfere with the active principles of the oil, to conceal the ordinary taste, and to render it so agreeable that it can be borne on the most delicate stomach without producing nausea or those disagreeable gaseous eructations which are so frequently occasioned, even by the most carefully prepared cod liver oil.

The properties of this compound, and its advantages over other preparations, may be summed up in the following few words. —

1st.—It prevents the disposition of tubercles in those that are pre-disposed to them, by altering the condition of the blood, and enriching it.

2nd.—It favors absorption, withering or drying up of the tubercle by the liquifacient power of the oil.

3rd.—It favors ossification, by furnishing the blood with extra lime.

4th.—It furnishes the blood with oil, of which it is known to be deficient.

5th.—If an ulcer or cavity have formed, from the increased nerve force, it favors cicatrization or healing of such organic lesions.

6th.—It soothes the cough and facilitates expectoration.

7th.—It is agreeable to the taste, and is not much more expensive than ordinary cod liver oil.

8th.—It may be given in all cases of debility, and whenever cod liver oil is recommended, as in Rickets, Leucorrhœa, Tabes Mesenterica, and enlargement of the glands, as it is more nutritious than the uncombined oil.

Selected Articles.

DOMESTIC LATRINÆ.

We have for some time been intending to say a word to our readers upon the importance, in a gynæcological light, of providing a better system of public "latrinæ" in all our large cities, and of a better arrangement of apparatus for a similar purpose in private dwellings. This is a matter, we are glad to say, which is already receiving deserved attention from the State Board of Health.

In looking up the literature of the "dry-earth system," at present so deservedly attracting public attention, we find a page or two directly to the point as specially affecting the health of women. In this connection we will not dwell upon the great value of the earth-closet, as tending to prevent the extension of cholera, the occurrence of typhoid and the like,—questions to which we may hereafter take occasion to recur. There is not a dwelling-house, a hotel, or a manufactory in the land, even if already provided with expensive plumbing work, where the closets would not be found a most useful appendage.

"Probably no single cause has had so much influence in producing the peculiarly delicate condition for which women living in the country and in small towns in America are notorious, as the discomfort, inconvenience, and frequent repulsiveness of their closet accommodations.

"In towns which are supplied with water, and in those houses of the better class which are furnished with water by private works, the use of the water-closet soon becomes universal, and its usefulness is at once recognized. But, probably, ninety-nine out of every hundred habitations in the whole country have nothing better than an unsightly privy, standing at some distance from the house,—too often barbarously foul,—and generally unapproachable except by an entirely unprotected walk, that is more or less exposed to public view, and, in wet or cold weather, is passable only at the risk of getting wet feet, dragging through wet grass or weeds, plodding through snow, or facing cold winds and storms.

"As a natural consequence, delicate women soon school themselves to a postponement of the demands of nature, sometimes for days together, rather than expose themselves to the danger of taking cold and to the certainty of great annoyance. Sometimes modesty, and sometimes the dread of discomfort and exposure, is the motive. In all cases the result is the same. The natural functions become disordered, the digestion is impaired, and dyspepsia with its thousand and one horrors, breaks down the constitution and lays the foundation for all manner of 'female complaints.'

"It is unnecessary to enlarge on this subject. Every sensible woman who has been subjected to the evil alluded to must accept the foregoing statement of the case as a true one, and recognize the fact that any plan by which suitable accommodation can be provided within the house offers unspeakable relief.

"In addition to this, women who have had the least experience in sick-rooms know that nothing connected with our lives is more horrible than the want of suitable accommodations for helpless invalids (and this not even the water-closet supplies),—horrible for the attendant, and still more horrible for the invalid himself.

"The most perfect relief in both cases is afforded by the use of the earth-closet. It is not worth while to discuss here the relative superiority of the water-closet and the earth-closet, the only idea that is sought now to enforce is, that by the aid of the latter the well-known advantages of the former are placed within the reach of every person in the land."—*Gynecological Journal*.

CLEARING OF MUDDY WATER.—Dr. C. Schlosing states in an article in the *Comptes Rendus*, that waters contaminated by floating particles of clay may be readily clarified by small quantities of salts of lime. It is well known that the waters of rivers after a heavy fall of rain or snow, and sometimes throughout the winter, do not become quite clean by deposition, even if left undisturbed in large reservoirs for a long space of time. The author recommends the addition of 1/10000th part of chloride of calcium for one part of water (or 70 grams to the gallon), a quantity which effects clarification in a moment. The precipitated substance can be readily separated by filtration. Other salts of lime, such as the nitrate and bicarbonate, and caustic lime, effect the same object.—*Medical and Surgical Report*.

HYDRATE OF CHLORAL, WITH CASES ILLUSTRATING
ITS ACTION.BY EDWARD H. CLARKE, M.D., PROFESSOR OF MATERIA MEDICA
IN HARVARD UNIVERSITY

Chloral was discovered by Liebig in 1832. Its chemical properties were more fully investigated by Dumas in 1834. It was afterward studied by MM. Regnault, Kopp and Wurtz. It was known, however, chiefly or only to chemists, and regarded by them more as a curiosity than an article of value, till M. Liebroich, of Berlin, introduced it in the form of hydrate of chloral into therapeutics. Since then its physiological and therapeutical action has been investigated by MM. Bouchut, Bricoteau and Demarquay of France, Dr. B. W. Richardson, J. B. Russell, of England, Dr. William A. Hammond of New York, DaCosta of Philadelphia, and others both of this country and Europe. It has been tried both in hospitals and in private practice. On the whole, the verdict of the profession is in its favor. Its probable value as a therapeutic agent is such that clinical observations with regard to its action in disease are interesting and important. It is moreover interesting as an admirable illustration of the close alliance between the chemical constitution, the physiological action and the therapeutical use of drugs. This alliance is becoming every day more apparent, and the time is not far distant when it will be generally recognized by the practising physician, and constantly guide him in the art of prescribing.

Chloral, from which the hydrate is made by the addition of water, is described by Dr. Benj. W. Richardson, the distinguished London physician and physiologist, as "an oily liquid, colorless, and of pungent odor. It is an irritant to the skin. Its specific gravity is 1500 as compared with water at 60°, its vapor density is 74 compared with hydrogen as unity, and its boiling point is 99° Cent.—210° Fahr." It is made by treating anhydrous alcohol with chlorine.

The hydrate of chloral is made by combining chemically water and chloral. This is described by Dr. Richardson, in the article just quoted, as a "white crystalline substance. The crystals are rhombic. In the formation of the hydrate, about

eight parts of chloral combine with one part of water, forming nine parts of the crystalline substance. Hydrate of chloral, therefore, contains 90 per cent. of chloral. The hydrate, although a solid, volatilizes like camphor without decomposition. It dissolves in water so freely that a saturated solution contains 50 per cent. It dissolves also in alcohol and ether." We learn from the same authority that when it is acted upon by an alkali, as potassa, soda or ammonia, it is decomposed into a formate and chloroform. If any quantity of potassa is added to a solution of hydrate of chloral, a corresponding amount of chloroform is evolved. The presence of the latter agent may not only be detected by the milkiness of the fluid, but by the characteristic odor of chloroform. This fact of the evolution of chloroform from the hydrate of chloral, when the latter is put in contact with alkalies, is an important practical one to the physician. It not only indicates the impropriety of uniting an alkali with the hydrate of chloral in prescriptions, but it points to the most probable explanation of its physiological action. Some account of this action will form an appropriate introduction to the chemical observations that follow.

Physiologists have experimented with hydrate of chloral upon all classes of animals. Its action has been studied on fishes, frogs, rabbits, cats, mice, dogs, pigeons, and I know not how many other living creatures as well as man. Upon all of them it exerts a certain similarity of action, though with some curious differences. When fishes are put into water sufficiently charged with it, they absorb it by inhalation, grow sluggish and fall asleep. Frogs fall asleep by the subcutaneous injection of half a grain, they are apt to be killed by three-quarters of a grain, and are sure to be killed by more than the latter dose. A quarter of a grain will put a mouse into a sound sleep. Rabbits come easily under its influence, whether given by the stomach or subcutaneously, and may be put into a gentle sleep, or narcotized or killed by it, at the will of the experimenter. Pigeons, that according to Weir Mitchell, tolerate enormous doses of opium with impunity, are easily narcotized by hydrate of chloral. Cats come readily under its influence, and when subjected to it they are said to purr with obvious comfort as they go to sleep.

We learn from the admirable researches of Dr Richardson, that the sleep induced in all sorts of animals by hydrate of

chloral resembles natural sleep. Recovery from this sleep is unattended with any apparent derangement of the system. The drug may be administered in doses just large enough to produce this sort of natural sleep, or in doses large enough to produce a dangerous degree of narcotism, or in doses that shall rapidly prove fatal. In other words, the hydrate of chloral is to animals a pleasant and harmless anodyne, or a dangerous narcotic, or a rapid and fatal poison, according to the dose in which it is given. In this respect its action on animals resembles its action on man. When death is produced, the heart seems to be the ultimum moriens. The circulation may be seen going on in the web of a frog's foot, when the animal is so profoundly under the influence of the drug as to appear dead.

Muscular relaxation, complete anaesthesia, absence of reflex movements and reduction of animal temperature, in varying degrees, dependent upon the doses given, accompany the narcotism of hydrate of chloral. An apparent hyperaesthesia has sometimes been noticed, especially by M. Demarquay, but it is an occasional and exceptional phenomenon.

A knowledge of the physiological action of the hydrate of chloral on man is an indispensable guide to its use in disease. We do not yet comprehend this action completely, but we know enough of it to aid us materially in its clinical administration. The points of greatest importance to the practitioner are its absorption, its elimination, the changes which it undergoes in its progress through the system, and its action on the system, from the period of absorption to that of complete elimination.

1st. *Absorption.*—Hydrate of chloral is readily absorbed by the mucous surfaces of the stomach and rectum, and also by the cellular tissue. For absorption by the latter tissue it should be administered by subcutaneous injection. This procedure, on account of the local irritation which it induces, is not one to be recommended. The ordinary method of giving it by the stomach is the best. If concentrated when thus given, it produces local irritation and nausea, and is apt to be thrown off. It is easily and quickly absorbed from the stomach if largely diluted. I have usually found that a solution stronger than a grain of the hydrate to a drachm of water will produce gastric uneasiness. When diluted to this or to a greater extent, it is well tolerated by the stomach. If a moderate dose is given, viz, one of thirty

grains or less, it is probable that the whole of it is absorbed in a few minutes. In the first of the following cases, the hypnotic effect was produced in ten minutes after the administration of the drug. As the dose of it in that case was only fifteen grains, it is fair to infer that the whole, or nearly the whole of the quantity given passed from the stomach into the blood within that space of time. The stomach appears to be capable of passing into the blood any quantity of hydrate of chloral that may be put into it, provided that the article is pure and sufficiently diluted. Hence any quantity of it may be given at a dose, so far as the stomach is concerned, that it is wise to administer. The presence of food in the stomach would be likely to delay its absorption. Any irritation of the stomach, like gastritis, would probably render that organ intolerant of it, though I have never proved this by experiment. The absorption of the hydrate of chloral by the stomach, then, is easily and quickly induced when it is given largely diluted upon an empty stomach whose mucous membrane is in a normal condition.

2nd Progress through the System.—The hydrate of chloral goes from the stomach into the blood unchanged. In the blood it meets with an alkali. The experiments of Dr. Richardson and others show that the hydrate of chloral in contact with an alkali is decomposed and chloroform evolved. Indeed, chloroform has been obtained from the vapor arising from a mixture of freshly drawn blood and hydrate of chloral. We have the authority of Liebreich for stating that when the hydrate meets with an alkali in the blood, it behaves as it does when it meets with alkalies out of the system. That is, as soon as hydrate of chloral reaches the blood by any avenue, it commences to yield chloroform. The amount of chloroform thus given to the blood is proportionate to the quantity of chloral absorbed and also to the alkalinity of the blood. The total quantity of chloral absorbed is not immediately decomposed into chloroform. The drug mixes with the blood, passes with the blood to every part of the organism, and, as it circulates, continues to yield chloroform until it is exhausted. In cases of fever of a low type, such as typhus and typhoid fever, when the blood is highly charged with ammonia, that fluid is in a state to extract chloroform from chloral more rapidly than when it is less alkaline. Under such circumstances a given dose of hydrate of chloral should produce

its physiological action more rapidly and powerfully than it ordinarily does. Since writing these words, I have met with the clinical experiments of Dr. J. B. Russell with the hydrate in typhus fever, at the Glasgow Fever Hospital, and these indicate that such is the case. Doubtless other substitution compounds than chloroform result from the decomposition of hydrate of chloral in the blood, and exert more or less influence on the organism till they are eliminated from it. What these compounds are, and what their physiological action is, cannot yet be stated. It is probable that some of the physiological actions of the drug we are considering are due to these compounds. Until they are discovered and their effects known, a complete solution of the problem of the physiological action of hydrate of chloral is impossible.

The above theory of the decomposition of hydrate of chloral in the blood into chloroform, not all at once, but with comparative slowness, particle by particle, just as fast as a particle of chloral meets with a sufficient quantity of an alkali, is that of Liebreich. It is a beautiful and ingenious theory, and one that seems to me justified by physiological experiment and clinical observation. The chloroform, yielded by the chloral to the blood, of course behaves in that fluid just as the same amount of chloroform would do if it were passed into the blood at the same rate by any other process. Hence hydrate of chloral, according to its dose, soporific, anæsthetic or dangerous because it yields chloroform. But it is not probable that in moderate doses it will ever prove dangerous, because in such doses the chloroform evolved will be eliminated too rapidly to be so.

The hydrate of chloral, then, passes rapidly from the stomach into the blood unchanged. In the blood it is decomposed into chloroform, and perhaps into other compounds also. These substitution compounds continue to circulate with the blood throughout the organism, until they are oxidized in it or eliminated from it.

3rd. *Elimination.*—Most, if not all, of the hydrate of chloral is eliminated from the system in the form of chloroform, into which it has been changed. Dr. Richardson states that he has detected the odor of chloroform in the breath of animals sleeping under the influence of chloral. Messrs. Lallemand, Porrin and Duroy have shown that chloroform is eliminated chiefly by the

pulmonary mucous surface. They have also shown that when it is rapidly introduced into the organism, it is more rapidly eliminated than when it is slowly introduced. When it is slowly introduced, at least an hour and a-half is required after the introduction of the last dose, that is, after the last quantity of it has been inhaled, for its complete elimination from the blood. So far as we know at present, the elimination of the hydrate of chloral is the same as the elimination of chloroform slowly introduced into the blood. So much of the hydrate as has been changed into chloroform is eliminated by the pulmonary mucous surface in an hour and a-half, or less, after its absorption. When, therefore, it is desirable to keep the blood charged with the hydrate of chloral continuously, it should be given at intervals of not more than two hours. If this is undesirable, a second dose should never be administered until sufficient time has elapsed for the elimination of the first. The practitioner should select one or the other of these modes of administration, in accordance with the therapeutic object he has in view. How any of the other substitution compounds of the hydrate of chloral are eliminated, we do not yet know. They are probably oxidized in the organism.

4th. Action on the System—Hydrate of chloral, while in the system, affects especially the blood, the cerebro-spinal axis, the heart and arteries, the muscular system, and the temperature.

When a single therapeutic dose of chloral is administered, it passes into and out of the blood without producing any chemical change in that fluid. If the dose, however, is so large as to be a toxicological one, the blood undergoes a change. It becomes, as we learn from Dr. Richardson's experiments, less coagulable, and its corpuscles become shrunken and crenate, it is in fact devitalized. In this respect the action of chloral on the blood resembles that of large or long continued doses of ammonia or potash. If chloroform were administered in therapeutic doses for a long time, and with such short intervals between each dose, that its complete elimination from the blood, for at least a portion of each twenty-four hours, were rendered impossible, a devitalization of the blood would doubtless result. That such is not the case, provided chloral is given so as to allow for its daily complete elimination, we learn from clinical observation. I have said that in this respect the action of

chloral on the blood resembles that of alkalis. Alcohol would have been a better illustration, for alcohol administered in therapeutic doses, for a long period, with such intervals between them, that the blood may be completely freed from it during a portion of each twenty four hours, does not change the character of the blood, while it does change and devitalize the blood, if its daily and complete elimination is not provided for.

The physiological action of chloral on the cerebro-spinal system indicates its chief value in therapeutics. My own observation confirms the statement of M. Bricheau that this action "is manifested by a period of agitation, more or less pronounced, sometimes very short, and not of importance, by a period of progressive somnolence, in which consciousness is first dulled and then extinguished under a profound sleep, accompanied by a slight or a complete anaesthesia according as the drug is pure and given in a sufficient dose, and in some individuals, by a sort of intoxication, resembling drunkenness at the moment of awakening." Sleep and a certain amount of anaesthesia are two marked effects of therapeutic doses of chloral. Profound sleep and complete anaesthesia are the result of toxic dose. The sleep of a therapeutic dose is strikingly like natural sleep. The limbs lie in natural attitudes. The respiration is easy. The skin is normal, or a little cool. The pupils of the eyes are contracted, but easily dilate. A sufficient noise or disturbance arouses the sleeper, who asks what is the matter, and directly falls asleep again. The duration of the sleep varies from two or three to six or eight hours, according to the dose and to the impressibility of the subject.

Complete anaesthesia is not produced by hydrate of chloral on man, unless doses that approach or really are toxic ones are given. Therapeutical doses produce a moderate insensibility, and therefore may be used to allay a moderate amount of pain, but they will not replace opium in this respect. The order in which the nervous system is affected by therapeutic and toxic doses is stated by Dr. Richardson to be as follows. Therapeutic doses affect 1st, The sympathetic ganglia. 2nd, The cerebrum. 3rd, The heart. In fatal cases, the functions destroyed are, 1st, The cerebral. 3rd, The voluntary muscular. 3rd, The respiratory. 4th, The heart."

The action of the heart is often quickened soon after chloral

is absorbed, but in a short time the quickened action gives place to a slower and weaker movement. It is the rule for therapeutic doses to decrease the frequency and force of the heart's beat. In nine observations made by DaCosta, in one of which ten and in the rest fifteen grs. were injected hypodermically, the following result was obtained. In two cases the pulse fell in an hour from 90 to 78—101 to 86—96 to 82—96 to 44 and 100 to 96. In two cases the number of beats was unaltered; and in two it was increased from 60 to 64, and from 80 to 84. M. Bouchut, DaCosta and Dr. Austin agree that the sphygmographic trace of the chloralized pulse is simous with a diminished rise and fall. Toxic doses render the pulse quick and small, and contract the arterioles, sometimes, says Dr. Austin, "to the extent of strong spasmodic contraction."

The condition of the cerebral blood vessels, while under the influence of hydrate of chloral, varies with the dose and with the length of time after its administration. Dr. W. A. Hammond has demonstrated by several ingenious and interesting experiments, that the primary effect of a full therapeutic dose is to cause congestion of these vessels, while the secondary effect is to induce the opposite condition. He has also shown that a small dose produces only congestion of the cerebral vessels. Such a dose is probably eliminated before there is time for secondary results to occur.

Animal temperature is lowered by chloral, if a sufficient dose is given. In all but one of DaCosta's cases just referred to, the temperature either fell slightly or was unaffected. In one case it rose from 99° to 100°.5. Brichteau noticed the decrease of temperature. Dr. Richardson has confirmed it by fifty carefully conducted experiments. A comparison of the results arrived at on this point by these and other observers, however, points to decrease of temperature as the accompaniment of a toxic rather than of a therapeutic dose. An attempt to largely lower the animal temperature by chloral would be a dangerous experiment. I agree with M. Brichteau that "the loss of one degree (centigrade) of temperature in an hour by the action of chloral would alarm me, if it occurred in one of my patients."

Under the influence of therapeutic doses of hydrate of chloral, the respiration is slowed as well as the action of the heart, but not to any great degree. Muscular relaxation also occurs.

Therapeutic Indications.—The therapeutic indications and contra-indications which these physiological phenomena point to, are obvious. Hydrate of chloral may be given so as to produce sleep, diminish sensibility, allay irritation, slow the heart, relax muscular tissue, lower animal temperature, devitalize the blood, cause anæsthesia and destroy life. Part of these phenomena have a therapeutic value, and part are toxic. They may be arranged in two groups, thus:—

Therapeutic Group.	Toxic Group.
Sleep. Diminished sensibility. Diminished irritation. Muscular relaxation. Contraction of arterioles.	Slow or irregular pulse. Complete Anæsthesia. Altered blood globules. Great diminution of temperature. Great muscular relaxation. Death.

In the administration of chloral, the practitioner of course desires to obtain the therapeutic and avoid the toxic phenomena. This can easily be done by a proper attention to the purity of the article and to the mode of its administration. The indications to produce sleep, diminish sensibility and allay irritation, occur very often in the treatment of disease. Hence it is not surprising that chloral has been tried clinically in a great variety of diseases.

The *contra-indications* to the use of the hydrate of chloral have not yet been fully ascertained. Its physiological action on the heart is such as to render one very cautious about administering it in cardiac affections. The experiments of Dr. Hammond show that it is not safe to prescribe it in all forms of disease of the head. Organic diseases of the heart, congestion of the brain, meningitis, and very probably cerebral anæmia, contra-indicate its use.

The average dose for an adult is 30 grs. A decided hypnotic effect is produced in some impressible individuals by 15 grs. It is not safe to exceed the dose of 60 grs. in the course of ten or twelve hours. I have noticed that 30 grs., given in two doses of 15 grs. each, half or quarter of an hour apart, will produce less gastric uneasiness and greater hypnotic action than when given in a single dose. Theoretically, in consequence of the rapid elimination of the chloroform evolved from the chloral in the blood, such should be the case. It may be administered

by the stomach or by the rectum, and it is not necessary to give a larger dose by the latter than by the former method.

M. Claudio Bernard has shown that less chloroform is necessary to produce anaesthesia in an animal or a man previously narcotized by morphia, than in one to whom morphia has not been previously given. I have observed, clinically, that there is a similar mutual action between hydrate of chloral and morphia. A fourth of a grain of one of the salts of morphia, followed in an hour by 15 or 20 grs. of hydrate of chloral, will produce a greater anaesthetic and hypnotic effect than a larger dose of either of them given alone. In many cases, where a certain dose of morphia is sufficient to allay pain, but not to produce sleep, it is better to follow the morphia by hydrate of chloral than to repeat the former.

In concluding this account of the physiological and therapeutical action of chloral, I cannot express my opinion of it more clearly than to quote the words of Dr. DaCosta in the paper previously referred to, viz.: "that it is an important addition to our therapeutic means—chiefly, however, as a hypnotic. Its action as a destroyer of pain is limited; nor do I think it can compete with ether or chloroform to produce the insensibility requisite for surgical operations. Its chief value seems to be that of an auxiliary to opium, or to take its place when opium is not admissible." As a hypnotic, hydrate of chloral is better than opium. Chloral sleep is better than opium sleep.—*Boston Med. Journal.*

TREATMENT OF RHEUMATIC FEVER BY PERCHLORIDE OF IRON.—The marked effects of tincture of perchloride of iron in such diseases as erysipelas and diphtheroid sore throat had induced J. Russell Reynolds, M.D., F.R.S., London, to try it in acute rheumatism—which agreed with the others in coming under the class of "spreading" inflammatory affections. He had given it in eight cases with such success as would justify a further trial. Having given brief histories of the eight cases, he directed attention to certain points. 1. The relief of the joint affections was definite, uniform and speedy. In four cases it was removed in one day, and the longest period of suffering

after the commencement of the treatment was five-days. 2. Excluding one fatal case with cerebral symptoms, and another where there was intercurrent pneumonia, the temperature became normal between the second and the seventh days, the mean duration of pyrexia being a little less than five days and a half. 3. Excluding again the two exceptional cases already mentioned, the total duration of rheumatic fever from the outset varied from seven to fifteen days, giving a mean of ten and a half days. 4. The earlier the iron was given, the shorter was the duration of the disease. No headache or other symptoms of discomfort was produced by the iron.—*British Medical Journal.*

THERAPEUTICS OF CHRONIC CONSTIPATION.

BY JOHN KENT SPENDER, LONDON.

I do not think that the usual professional treatment of chronic constipation of the bowels is very satisfactory. It appears to aim at the one obtrusive symptom, and to help the patient out of a present difficulty without sufficient reference to a future. It removes the obstacle of to-day by legitimate and easy means, but the obstacle of to-morrow is not prevented; hence what is done to-day must be done again to-morrow, and the remedial formula has an awkward *ad infinitum* look about it. My object in this paper is to try to raise a point of every day practice to a scientific level.

Among the odd idiosyncracies which nature displays in the regulation of the digestive functions, an infrequent evacuation of the bowels is very common; and it is important that this condition be distinguished from the genuine morbid state rightly denominated constipation. For what is natural to a person can in no sense be called a disease. Many persons seem well, and really are well, whose physiology could not be to any one else, without becoming a pathology more or less developed. No strong, hard line can ever be drawn between what is health and what is not health. And it may be declared with absoluteness that if a person who can bear an infrequent flux from the intestines without the slightest apparent inconvenience, it is a part of

his regular vital plan, and ought not to be stigmatized by the name of disease at all.

Assuming that we have before us a case which clearly deserves the name of constipation of the bowels, the therapeutic inquiry is, how shall it be treated?

Aperient medicines are enumerated, and their characteristic properties described with the completeness and minuteness of a system of *Materia Medica*. Each drug has its specific virtues; give this or that, according as the constipation is more or less obstinate, and according as you have an adult or a child, a strong or a weak person to deal with. But when the present exigency is remedied, what about a week hence, a month, a year? Is the same drugging to go on eternally—the same potions, pills or powders to come round in rhythmic order, always satisfying the present need and no more?

The plan which I now propose does bestow some care on the future, and professes to be, so far, curative in its operation. It comprises four therapeutic factors: (a) minute and frequent doses of watery extract of aloes, very rarely of extract of colocynth; (b) a dose of sulphate of iron (gr. jss or ij.) always combined with each dose of the direct aperient, (c) regulation of the diet; (d) constitutional exercise. I have to write chiefly of factors (a) and (b). The quantity of extract of aloes, in all but extraordinary cases, should not exceed one grain. It is conveniently given in the form of a pill. With this pill there should always be mixed a dose of sulphate of iron, varying from one to three grains; this is the essential point of the treatment. Any other tonic of the neurotic kind cannot supply the place of the iron; for the purpose I am now relating, iron is not only *facile princeps*, but is not interchangeable with anything else. Extract of *nux vomica* may be added if the prescriber pleases, as an ornamental appendage or as a means of blending the other constituents together; and belladonna is a remedy of definite auxiliary power, but both these drugs, *quoad* constipation of the bowels, are uncertain or unsatisfactory, and rarely do permanent good. I begin, then by desiring an adult patient to take a pill composed as above three times a day, immediately after the principle meals. He is cautioned that at first there will be no apparent effect, and two or even three days may pass before any medicinal evacuation of the bowels takes place, perhaps even

then difficult and discomforting. But within the next forty-eight hours there will be most likely an evacuation of the bowels, once or possibly twice in the day, but *nothing approaching purgation ought ever to be permitted*, and therefore the patient must be instructed, on the occurrence of the first loose motion, to withhold a pill, and to take only one in the morning and one in the evening. He then continues for a time his morning and evening pill, and is pleased to discover that so slender a medicament has such a decided effect. Not improbably, at the end of another week or fortnight, he is compelled by the same reason as before to drop another pill, and the same result is now brought about by one pill daily, as was originally produced by three pills. Within another month he may reduce his allowance of medicine to a single pill once or twice a week, and, finally, his whole scheme of medical treatment becomes merely preventive in its design and scope, and he takes a pill occasionally for the sake of maintaining health and warding off old troubles.

When there is a real or fanciful difficulty in the administration of pills, the best way of carrying out the plan above described is by combining the *mistura ferri composita* with the *decoctum aloes compositum*, the doses being determined by an application of the principles. There is wider room for the addition of auxiliary drugs, but, on the whole, I have not obtained such satisfactory results by this method.

The urgency of regulating the quantity and quality of the food is so obvious that I need add nothing to what has been so well laid down by systematic writers. The necessity of constitutional exercise—a definite amount every day—is equally clear, and its physiology requires no illustration here.—*London Medical Times and Gazette.*

SULPHITE OF SODA IN TENIA CAPITIS, ETC.—In the *American Journal of Medical Science* for October, 1869, Dr. C. M. Watrous, of Pennsylvania, recommends the Sulphite of Soda, as a local application in tenia capitis, crusta lactea and similar affections. In one case he used half an ounce to a pint of water, applied constantly by compresses with the solution—making it weaker as it caused smarting. In another case he used forty grams of the sulphite to half an ounce each of distilled water and

glycerine, the parts moistened with this three or four times a day. This last prescription he has used in the ear three times a day in serofulous otitis, dropping in a few drops after washing the ear out, and excluding the air by cotton wool—*Oregon Med. and Surg. Reporter.*

CLINICS.

CLINICAL LECTURE ON ABSCESS IN DIFFERENT LOCALITIES
BY FREDERICK C. SKEY, ESQ, CONSULTING SURGEON
TO ST. BARTHOLOMEW'S HOSPITAL, ETC.

There is no disease more universal than abscess, and none that demands from the surgeon clearer pathologic views, and the consideration of which will afford you material for much profitable reflection. It may be preceded in its formation by a deposit of solid lymph, greater or less in magnitude; or an abscess may form without previous indication of its existence. Such examples are not infrequently found under the skin, and in various parts of the frame, following diseases which exert an unusually depressing influence on the system—such as fever, dysentery, phthisis, &c. This latter variety is invariably the product of extreme debility. Now, is this purulent deposit in the tissues of the body the result, as is too often supposed, of real inflammation—that is, of an active hyperemia—or not? Assuredly it is not. It is associated with, and, more than that, it is the product of, a weak condition of the arterial system, and necessarily of all the vital powers. You will find the pulse, when the disease is extensive, weak; for, even if full and large in calibre, it is readily compressed. I wish you especially to recognize this feature in the formation and progress of simple abscess; the indications of weakness being, of course, greater when the abscess is large. The greater the debility the larger the abscess, and the slower its progress towards maturity and recovery.

You will naturally infer, then, that all abscesses occurring spontaneously, or rather without external and obvious causes, demand treatment by tonics and stimulants, and of such I select especially bark and wine. There is no remedy in the Phar-

macopœia so potent in producing suppurative action as bark, and of all forms the simple tincture is the most efficient, in full doses of two or three drachms diluted with water. By the term suppurative action, I understand the conversion or breaking down of a mass of lymph, itself quite incapable of removal by the absorbents, into fluid pus—in fact, into abscess.

There is no form of abscess more illustrative of these truths than the disease when situated in the mammary gland, on which I have so often spoken in this theatre. It appears in weakly constitutions following long and severe confinements with loss of blood, or a low and unnutritious diet, erroneously supposed to act as a preventive to inflammation, which, in truth, it actually fosters.

I speak of common *mammary abscess*, which appears at varying periods after confinement, in its first stage of deposit of lymph, when occupying a greater or less portion of the entire gland. Now let me assure you that we have no means within the circle of our present knowledge of obtaining the absorption of this solid mass or throwing it back on the constitution. Neither iodine, nor leeches, nor fomentations, nor purgatives, or other supposed remedies confidently proposed by young medical men, who, unfortunately observe little, and think less, are at all available to good. Yet you are aware that they are the agents which two-thirds of you at least would resort to, I am sure of this, for I am told so at every college examination. Pray understand the absolute impossibility of getting rid of this once deposited mass by the means alluded to, and which you are all prepared to adopt. I will not go so far as to say it may not be at least partially dissipated by absorption, but not by your means.

The proportion of the deposit that may be absorbed depends on the stage it has arrived at. If much advanced it will pass on almost entirely into suppuration. It has already entered on that of suppurative action, it will not remain stationary, and it must advance, but whether its progress towards its necessary consummation be slow or rapid, depends on your treatment. I say, in all abscess give bark freely, and generally wine, and the larger quantity of each that your patient can bear, the earlier will this solid mass break down in the centre and form a large abscess, which, when matured, and not before, should be freely laid open with the knife. If the deposit be recent, and the

disease treated early on this sound principle, a portion of the mass will be taken up by the absorbents, indicated by the disproportionate quantity of pus to the large mass that has produced it.

It is not always an easy diagnosis to determine whether fluid about the *knee-joint* is within the cavity of the articulation or without it. As a rule the diagnosis is readily attained in these cases. You will tell me that when the fluid extends over the patella, the disease consists of abscess around the joint, and when the patella is raised, and is pushed up by fluid underneath it, the collection is within the articulation. That is all very true. But in many cases the fluid, although confined to the joint, is not sufficient in quantity to raise the patella, and therefore you cannot always depend on that particular evidence; and in the other case, in which, consequent on the greater tenacity and closer adhesion of the integuments to the fibrous tissue upon the patella, I have seen several examples of what I have called the horse shoe abscess around the knee—viz: when the matter has travelled round three sides of the patella without extending over it. Such cases are very deceptive. In forming your opinion—and a correct judgment is often indispensable to the recovery of your patient—you would, of course, place your greatest reliance on the local examination by the hand, and, this proving insufficient, weigh deliberately the evidence in favor of one or the other locality. If the fluid be in the joint, it may be a more serious affection, and the constitution takes cognizance of it as such. If external, probably the formation of abscess has been preceded by some local injury of a superficial kind, involving the cellular tissue, and in which the condition of the skin itself may add its testimony.

I now come to abscess on a larger scale. *Abdominal abscess* presents itself in the form of a large tumour, occupying the lower part of the abdominal walls, and commonly extending from the ilium towards the mesial line of the abdomen. The size is sometimes immense. It is firm, solid, and unyielding on pressure, but not very painful.

Pelvic abscess may occur independently of parturition, or during its progress. It is attended by local pain of a severe character, which is aggravated by digital examination. Tenderness on pressure strengthens the suspicion of pent-up matter.

An examination per vaginam or per rectum detects either obvious or obscure fluctuation. Unless an early exit to this matter be made, the disease will extend throughout the sub-peritoneal coat of the uterus, bladder, and rectum. I have known one case in which this cellular inflammation, commencing in the tissue around the rectum, and into which the abscess actually burst, extended upwards around the uterus and bladder, and burst at the umbilicus. I have seen several cases in which the matter made its way through the sacro-schiatic foramen, and presented along the line of the ischiatic nerve. Whenever the presence of pus is detected, and indeed whenever it is on good evidence even suspected, an exploring needle should be resorted to, followed if required, by a good sized chain trocar with its curved canula. In severe cases, nothing short of following up the examination whenever and wherever the presence of matter is indicated by local pain can afford a reasonable prospect of recovery. If, on examination by the rectum, a large collection of pus is detected, and when confirmed on examination per vaginam, a free incision by the side of the rectum through the perinæum is more readily executed, and will afford a freer exit to the matter than puncture by means of a trocar through the walls either of the vagina or rectum — *Lancet*

Obituary.

THE HON JOHN ROLPH, M.D., LL.D., M.R.C.S., ENG

The most distinguished member of the medical profession in Canada is no longer among us. In the ripeness of age, and with no little honour, one who has justly been called the Father of the Canadian medical profession, has ceased to work and to live. The Hon Dr. Rolph died at Mitchell on the night of the 19th October, at the age of 83. For half a century Dr. Rolph's name has been more or less familiar to the Canadian public, and upon several occasions he has occupied most conspicuous positions in the political world. A native of England, he first, if we mistake not, came to America during the war of 1812. The vessel in which he had sailed was captured on her way out by an American cruiser, and he became a prisoner of war. Har-

ing landed at New York, he was permitted to proceed to the Niagara frontier, where, after some delay, he was allowed, under a flag of truce, to cross to the Canadian side. Up to his last years he would refer to the kindly way in which he was treated by the American surgeons, and other officers while he was detained at Niagara. It is not our intention to dwell upon the political history of Dr. Rolph. As a member of Parliament, and as a cabinet minister he won considerable distinction. As a Reformer and opposed to the old Family Compact, he earned the good will of many Upper Canadians, and for many a day was an earnest champion of the liberal party. It was often said of him, that he had studied the three professions of Law, Medicine, and Divinity. How far this was true of the last we are unprepared to say. But, at all events, he was a member of both the legal and medical professions. We shall refer only to his medical career. He studied medicine at St. Thomas' Hospital before the separation of Guy's, and was wont to speak of the worthies of British surgery who, at the beginning of the present century, filled the various chairs of that celebrated institution. Having procured the diploma of the Royal College of Surgeons, London, he followed his father's family to Canada. He practiced medicine for a time at Dundas and subsequently settled in Toronto. It was not long before he secured a large and respectable practice which he continued to enjoy until the events of 1836 and 7 drove him away. He selected Rochester, New York, for his home while an exile, where he lived until 1843, when he returned to Toronto. It was not long before he regained his practice, and always continued to possess the unlimited confidence of the people as a skilful practitioner. At the time he entered the Government in 1851, his practice must have been one of great value, which was transferred to another, still on his returning to practice some years later, he rapidly built up, for a third time, a lucrative professional business. Thus he only relinquished when age made it no longer possible for him to discharge the duties of active work.

But it was as a teacher of medicine that the subject of our notice more particularly achieved a name unsurpassed in the profession, in any country, or at any time. Even while he was an exile at Rochester, Canadians were with him studying medicine and after he came back to Toronto, he very shortly had about him a class of students who delighted to sit at his feet, listening to the words of learning from the eloquent teacher. Dr. Rolph is the founder of the two medical schools now existing in Toronto. Many years ago, while he was alone in giving instruction,

students, going to McGill College, had credited to them the lectures delivered by him, as a regular course. But many of his students went before the Medical Board of Upper Canada. The success which attended his teaching before long became generally known, and his School became a rival to the one constituting the Medical Department of King's College Toronto. In the year 1853, we believe it was, an Act of Parliament, was obtained by which his School was incorporated under the title of 'The Toronto School of Medicine.' Although possessed of this name, the School continued to be called by many "Rolph's School." Some time about the year 1855, a union was effected between the Toronto School of Medicine and the University of Victoria College. But, at the commencement of the 4th or 5th session, owing to some misunderstanding, all of Dr. Rolph's colleagues withdrew from the College, and continued to work under the title of the Toronto School of Medicine. Although thus left alone, he proceeded with the work of the session, and by the aid of a few others finished the course, with a limited number of students. The following year, however, the class was larger, and as year succeeded year, the Medical Department of Victoria College increased in number and efficiency. Two years ago, although he had undertaken to deliver his usual course upon the Practice of Medicine he was compelled from failing strength to cease his lectures. Indeed, during the previous year, his feeble tones could not reach beyond the first seats of the class-room, yet the students were ever silent to try to catch the words of the "old man eloquent." Notwithstanding the waning physical strength of the old veteran, he retained much of his mental power and continued to occupy the office of Dean, until a few months before his death.

Dr. Rolph, in addition to his M.R.C.S. of England, had the degree of M.D. from Victoria University. The same institution also conferred upon him the honorary degree of LL.D. When the fact of his death became known in Toronto, every respect was shown for his memory by the College over which he had so recently presided. The lectures were suspended for the week, and the students after passing resolutions of condolence with the bereaved widow, resolved to wear mourning on the arm for a period of thirty days. Had the remains been interred in the city, the faculty and students intended in a body to follow them to the grave.

We have already given as much space as is at our disposal, and we conclude this hastily written sketch of a great medical teacher, with the respectful offer of our deepest sympathy with those who have lost a husband and father.

THE LATE DR ROLPH AND VICTORIA COLLEGE.

The following address has been presented by the students of Victoria College:—

To MRS. J. ROLPH

Dear Madam,—It is with profound feelings of sorrow that we, the undergraduates of Victoria College, learn of the death of our late and honoured Dean, Hon. Dr. Rolph.

As it has pleased Almighty God, in His Divine providence, to remove him from the cares and anxieties of this life, we feel it to be our duty to share, as far as possible, your great affliction and sad bereavement.

By his removal you have lost a kind and devoted husband, we have been deprived of a great and faithful friend, and the profession to which we are aspiring one of its ablest and most successful members.

The kindness of his heart, the purity of his conduct, the urbanity of his manners, and the wisdom of his counsels, bound us to him by the strongest cords of affection.

We have reason to be grateful that he has been spared so long to adorn the social and scientific walks of life, and to win for himself so many proud distinctions in science, arts and literature.

The prosperity of Victoria College in the past, as well as its present proud and exalted position among similar institutions, is due, in a great degree, to the indefatigable energy, great ability and untiring zeal of our late lamented Dean, whose name was almost synonymous with medical education.

Although we will have him no longer in our midst to cheer and assist us on, yet he has left a name and an influence that will encourage and inspire us in the acquisition of our profession.

When *we* feel so keenly the loss of our esteemed friend and instructor, how much more keenly will *you* feel the loss of him who is torn from your bosom to be laid in the cold and silent tomb, whom you were wont to call by the tender and expressive name of husband.

But God, who called him from you laden with the rich honours of a well spent life, will be a husband to the widow and a father to the fatherless.

We hope you may be strengthened and sustained in the midst of your sorrow and affliction by Him who can turn sorrow into joy, and grief into happiness.

Dear Madam, accept our deepest sympathy and heartfelt condolence on your present sad bereavement, and we hope that when the cares of this life are over you may meet your dear husband in that brighter land that knows no parting.

Signed on behalf of the students of Victoria College.

R. McDONALD,
D. S. McCOLL,
F. D. ASTLEY,
L. C. CAMPBELL,
Committee.

Yorkville, 22nd Oct., 1870.

BOOK NOTICE.

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RENAL DISEASES. A Clinical Guide to their Diagnosis and Treatment. By W. R. Basham, M.D., Fellow of the Royal College of Physicians, Senior Physician to the Westminster Hospital, and Lecturer on Medicine, &c., &c. Philadelphia: Henry C. Lea. Toronto: Adam Stevenson & Co.

This little volume treats, in a plain practical way, of the various disorders to which the kidneys are liable. It is divided into three parts, the diseases being grouped together in a manner very convenient for clinical reference. Part I. treats of those diseases marked by symptoms of a more or less inflammatory type. Part II. of non-inflammatory renal affections, while Part III. is devoted to the physical, chemical and morphological properties of the urine, and a consideration of their significance in disease generally.

Part III. takes our fancy especially, as supplying a want felt by many young practitioners. Here we have the various morbid constituents of the urine described, simply, yet practically. Under albumen, for example, we have in the first place a few prefatory remarks as to its great pathological importance &c. The diseases in which it is present are then divided into two groups—1st. Those in which it occurs permanently, and, 2nd. Those in which it occurs temporarily, in the urine. Then come the usual tests, sufficient for ordinary clinical purposes, followed by others more delicate when the quantity of albumen may be very small, and the means of making an accurate estimate, where a knowledge of the exact quantity present may be desired. In like manner, sugar, urea, the phosphates, &c., are taken up, their pathological significance considered, and the various means of testing for them and estimating their quantity described.

A thorough knowledge of this subject is of great utility to the practitioner, and it is to be feared that, in Canada, it scarcely receives that attention, at the hands of many of the profession, to which its importance entitles it.