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CANADA LANCET.

WILLIAM EDWARD BOWMAN, M.D., EDITOR.

No. 10.

MONTREAL, DECEMBER 15, 1863.

VOL. I.

FEW REMARKS ON VACCINATION AND RE-VACCINATION.

By WM. H. HINGSTON, M.D., F.R.C.S.E.

Lecturer of the Leopold Academy, &c. &c. Physician to the Hotel Dieu, Montreal.

On the 18th May, 1861, an act was assented to by His Excellency the Governor General "To provide for the more general adoption of the practice of vaccination." That act provides that no public money should be paid to any Hospital, unless it had a small-pox ward; that the City Councils of Quebec, Three Rivers, St. Hyacinthe, Montreal, Ottawa, Kingston, Toronto, Hamilton, London, and Sherbrooke should contract with legally qualified medical practitioners for the vaccination of all those who might come to them; and that convenient places be appointed in each ward for the purpose. By that law, parents are bound to take their children to be vaccinated within three calendar months after their birth; to exhibit them to the medical practitioner on the eighth day after vaccination; and to obtain from him a certificate of successful vaccination. But if the child is not found unfit for vaccination, a certificate to that effect is to be given, and every succeeding two months the child is to be taken to the medical practitioner, until vaccinated, or found insusceptible of vaccine disease. Parents who do not comply with the requirements of this act, are liable, upon conviction, to a penalty not exceeding five dollars; and no such plea of conviction should be sufficient defence against any complaint which might afterwards be brought against the parent or guardian for non-compliance with the provisions of the act, respecting the same child.

Such is the substance of a law which is good so far as it goes; but which is defective in being too limited, and too partial in its scope. It was the duty of our Provincial Parliament to have followed the legislatures of other countries, and to have passed a law to render the practice of vaccination compulsory, not only in the larger cities, but throughout the province. Such a law would not have been considered inquisitorial, and would have reached persons of all conditions, and of every locality. As it is, the residents of the larger cities alone benefited; and such of them, only, as were of their own good pleasure, to submit to the repeated invitations of the public vaccinators. The smaller towns, as Brockville, Prescott, Port Hope, Belleville, Cobourg, &c., and all the numerous villages are unprovided with public vaccinators; while in country districts, physicians in private practice, to whom is left the duty of vaccinating, are rarely to be found in some places in Eastern Canada, at least—are not applied to for that purpose. The mass of the people intended to be benefited by this law are not provided with the necessity for, or the usefulness of vaccination—nay, many have a deep rooted prejudice against the practice of "putting a scab from

a cow upon the skin of a Christian." In this city, notwithstanding the policeman's alarm bell, notices in the newspapers, occasional promptings from the pulpit, and large posters in certain localities indicating offices for vaccination purposes, only about 400 have availed themselves of the services of the public vaccinators during the past two years; and of these, the greater number were vaccinated when the act, through the agency of the City Council, first obtained partial publicity.

Were all the rest attended to by private practitioners there would be no occasion to find fault; but it is not so: there are many families whose children never have been, and without some stringent compulsory law, never will be inoculated with the vaccine virus. Yet small-pox is, *par excellence*, a Canadian disease. It is rarely absent from this city, and never absent from the country. In every town and village throughout the province numerous traces of its former presence are visible. If we visit the French Canadian districts we find family after family "spotted" with it; and many a mother will tell us she has to deplore the loss of a loved one, by a disease which added to the usual horrors of death, the swollen distorted features that forbid the last embrace—nay even the last sad look of recognition. In those districts where small-pox is most prevalent, vaccination is unknown; and I am assured by professional gentlemen of the highest respectability in country districts, it is useless to attempt to convince many of the humbler classes that there is any conservative influence in the practice. Many regard small-pox as one of the necessary ills associated with our existence. The child must get its teeth, have measles, scarlatina, hooping-cough, and small-pox. And some go so far as to expose the child to the contagion of the latter when its health is good, hoping thereby it might run the gauntlet with greater comparative safety. The untutored savages in this country fly from it in terror; and when one is stricken with the disease (and it is supposed to have had more victims than the "fire-water," introduced by the beneficent white man) he draws himself—preferring a resting place among the fishes to lying a bloated, putrid mass, with no one to venture near him to moisten his lips.

'Tis strange a subject so deeply affecting the community, should not have received attention earlier; and 'tis passing strange that when attention was at length directed, a bill of the nature described—so partial in its scope and action—should have been foisted to lead persons to repose in fancied security, believing something had been done to ward off this loathsome malady. I cannot say what the success has been in the other cities and towns mentioned in the act, but in this city we have not an entirely vaccinated population. Within the past few weeks, small-pox has carried off large numbers in the west end and in the east end of the suburbs; and here and there throughout the city it has marked

or appropriated its victims. It is not my desire to censure our City Council with the imperfect manner in which the duty confided to it has been discharged; but I may observe, that, as the Council has taken upon itself the duty—not commanded but permitted—of enforcing the law, that duty should be performed fully and entirely, or not at all. The partial success obtained by the public vaccinators, (Doctors Leprohon, Campbell, and Ricard,) is due entirely to their own zeal. These gentlemen have, in most instances, sought out those who were not vaccinated, and carried the lymph to them. It cannot be expected, however, that for the miserably small fee of 25 cents, medical gentlemen should leave their other occupations to travel far in quest of those who should be forced to go to them. Greater publicity is wanted; and people should be made to understand that there is a law to compel vaccination; and that law should make examples of those who endanger the lives of their own children and those of others by a non-compliance with it.

Throughout the whole of Europe the practice of vaccination has long been general. In France, Prussia, Bavaria, Wirtemberg, Denmark, &c., where a longer or shorter residence permitted me to become familiar with the sanitary laws of these countries, the practice is general among civilians, and compulsory among the military; and not only one, but repeated vaccinations. Nor has the British Government, though disreputing anything seemingly inquisitorial, been less rigid in the enforcement of so good a law: and in a number of the *Times* for October, we read of an inquest on the body of a child dead of small-pox, where the Jury rendered a verdict amounting to manslaughter against the parents, for neglecting to have the child vaccinated.

In the neighboring States the practice is general, and every precaution is taken that prudence can suggest to prevent the occurrence, or to limit the ravages of the disease. Some of these, however, seem to be rather the hurried promptings of fear, than of wisdom.

But well founded doubts are entertained by physicians and others, concerning the continuance of the protecting influence of vaccination. The scar upon the arm produced by the vaccine virus is not now regarded as a guarantee *pour toujours* against the occurrence of the more unsightly small-pox scars upon the cheek. How much soever we may be disposed to laud the discovery of Jenner (and certainly no other of the present, or the past centuries can be compared with it in importance,) cases of small-pox occurring after successful vaccination are too frequent, to permit us to doubt there is a limit to the duration of that protecting influence. On the continent of Europe, this limitation was recognized and acted upon upwards of twenty years ago. Fifteen years afterwards, the subject was forced upon the attention of the British Army Medical department, when in 1858, a number of cases of small-pox having occurred in the army, particularly in India, among persons who had been previously vaccinated, a departmental order was issued "that in future, every recruit should, on joining his regiment be vaccinated, even if he should be found to have marks of small-pox or of previous vaccination." A number of soldiers "in whom the marks of vaccination were not deemed satisfactory, were vaccinated, and the results were kept separate from those of the recruits"; and the following table

shows "the degree of success which attended the operation in 1000 cases in each of four different categories, together with the general result upon all the men vaccinated."

Results of Revaccination in a portion of the British Army

Army exclusive of Militia	Total number vaccinated.	Results.	In those who bore marks of previous small-pox.	In those who bore good marks of previous vaccif.	In those who bore doubtful marks of prev. vaccination.	In those who bore no marks in prev. vac. or small-pox.	Total per 1000.
Soldiers not	4483	A perfect vaccine pustule.	414.30	423.50	294.12	489.96	412.7
		A modified vaccine pustule.	200.74	179.69	368.44	167.19	301.5
		A failure in vaccine do.	34.78	236.81	842.44	843.85	395.8
		Total.	1000	1000	1000	1000	1000
Recruits	21656	A perfect vaccine pustule.	850.96	388.71	427.61	593.64	398.2
		A modified vaccine do.	147.09	121.16	257.83	246.06	217.8
		A failure in vaccine do.	42.85	300.13	320.46	257.80	334.2
		Total.	1000	1000	1000	1000	1000

Result of Revaccination in the British Militia.

Embodied Militia.	Total number vaccinated.	Results.	In those who bore marks of previous small-pox.	In those who bore good marks of prev. vaccination.	In those who bore doubtful marks of prev. vaccination.	In those who bore no marks of prev. vac. or small-pox.	Total per 1000.
Soldiers not	1609	A perfect vaccine pustule.	327.07	234.57	612.12	451.55	366.9
		A modified vaccine pustule.	191.73	236.44	193.94	192.50	239.9
		A failure in vaccine do.	481.20	468.99	193.94	355.56	438.4
		Total.	1000	1000	1000	1000	1000
Recruits	4833	A perfect vaccine pustule.	261.14	226.00	415.18	586.06	336.5
		A modified vaccine do.	212.28	248.59	174.11	106.45	261.7
		A failure in vaccine do.	426.58	266.41	410.71	370.55	422.9
		Total.	1000	1000	1000	1000	1000

What is remarkable in the foregoing table is the fact that previous vaccination, or even previous small-pox, seems to have had but little influence in determining the general results; and I beg to direct attention specially to that fact to correct a very general but a very erroneous belief shared in by many physicians—that the failure

(after one or two trials) to successfully inoculate with the vaccine virus, adults who had previously been vaccinated, is a certain index that the system is still saturated by, and under the protecting influence of the lymph introduced, it may have been, many years before. This is a grave error which many persons have had cause to regret they had ever entertained. The returns furnished by the Wirtemberg army are strongly confirmatory of what I now state.

Result of Re-vaccination in the Wirtemberg Army.

Degree of success of Re-vaccination.	Of cases in the number of vaccination there were 7,346, and among those the results per 1000 were:	Of cases in the defective equilibria of vaccination there were 3,846, and among these the results per 1000 were:	Of cases with no circulation of vaccine infection or small-pox there were 2,922, and among these the results per 1000 were:	Of cases bearing marks of previous small-pox there were 2,400, and among these the results per 1000 were:
Perfect	310.04	290.7	337.3	319.5
Modified	280.5	230.	191.1	201.1
None	40.2	460.4	471.6	432.8

Mr. Simon, speaking of the above figures, says: "It is evidently impossible to argue that all who on re-vaccination yielded perfect vaccine vesicles would, on ordinary exposure to small-pox infection, have become infected with small-pox" for "inoculation of lymph, whether vaccinia or varioloid, is, so to speak, a finer and more delicate test of susceptibility to the small-pox poison than is the breathing of an infected atmosphere. On the other hand, there could be little reason to doubt that they would have been distinctively the endangered class. Not that all or nearly all of them would have suffered, but that, from among them, more than from among other vaccinated persons, the occasional sufferers by small-pox would have come." The statistics of other continental States are not less confirmatory. I regret I am not possessed of figures relating to the army of that country—ever foremost in all that science can elucidate or humanity prompt—France; but with the following, taken from the statistical report of the British army, sufficient will be obtained.

RESULTS IN 1000 RE-VACCINATIONS.

	Number of Re-vaccinations.	Perfect success.	Modified success.	Failures.
Prussian, 1836-40.	216 428	456.3	213.0	328.7
Bavarian	46 083	367.3	290.6	432
British Recruits	71.686	366.1	220.9	433.
Wirtemberg	14 384	360.2	248.3	411.5

Professor Heim states that in Wirtemberg, during the five years, 1833-7, though small-pox infection had been sixteen times imported into different regiments of the army, there had ensued among the 14,384 re-vaccinated soldiers, only — in the person of one whose re-vaccination, two years before, had been followed by "modified success,"

a single instance of varioloid. In the Prussian army previous to the adoption of re-vaccination there were (taking the average of ten years,) 104 annual deaths by small-pox; now the annual deaths for the re-vaccinated army is 2! And analysing the 40 fatal cases of small-pox which, during the last 20 years have occurred in the Prussian army, says Mr. Simon on the authority of Professor Heim, "we find that only four of the number were persons who (it is said) had been successfully re-vaccinated." During the past 20 years, the period during which re-vaccination has been compulsory in the Bavarian army, not one death nor even a case of unmodified small-pox has occurred in that body of nearly fifty thousand men! Denmark has, during the same period, presented a like immunity; though like her sister kingdom she has been exposed to small-pox contagion during several epidemics.

I cannot permit myself to encroach at greater length on the columns of the Journal; and moreover, sufficient has been written to render it at least desirable, that some law should be enacted, and when enacted, enforced, for the universal practice of vaccination, and the more general practice of re-vaccination. In the mean time I should suggest that the Councils in the different cities mentioned in the Act, give greater publicity to, and enforce the observance of the law *as it is*, until we possess a law *as it should be*; and that the public vaccinators be invited to re-vaccinate the adult population, and be compensated therefor, as for primary vaccination. And might we not secure the co-operation of the many thousand volunteers and militiamen throughout the Province by inviting them to imitate the practice now followed by their brethren in voluntary service in Great Britain, and in compulsory service on the continent of Europe, and submit to be re-vaccinated. The example, attended with but little inconvenience, and, where public vaccinators are to be found, no expense, would have many imitators in those who would not fail to perceive the comparative immunity from small-pox which the practice would have afforded. This, no doubt, will already have suggested itself to many of those who peruse the statistics furnished in this hastily written paper. To my own mind the subject has been suggested, most painfully, by observing, in the bed room of an able bodied young man dying of small-pox, a suspended bayonet and cartouche box, whose owner, by a little timely and trifling act, might have been spared to his country. To my professional brethren throughout the Province, I should urgently recommend the duty (as I clearly conceive it is a duty), of apprising the non-vaccinated among their patients, of the danger of the neglect; and the vaccinated, that the scar upon the arm is a guarantee of immunity from small-pox, which has its limit in duration. Not that we may ever hope to witness the entire disappearance of this loathsome malady—but reasonably to expect to limit, at least, and to deprive of its virulence, a disease which is frightfully common amongst us.

Montreal, 9th Dec., 1863.

Dr. Strak in the *Archiv der Heilkunde*, states that he has noticed that the heart becomes enlarged in some cases of chlorosis, diminishing again on recovery, and calls the attention of the profession to the subject.

Canada Lancet.

MONTREAL, DECEMBER 15, 1863.

Of all the public charities of the civilized world there are probably none in which, in proportion to the number of operations performed, more cases of bad surgery are so constantly occurring as in what is termed the General Hospital in this city; and we may safely add, no place on the globe where these blunders would be so long and so patiently tolerated without murmuring, as they are in Montreal. And whilst we perfectly agree with every good citizen that this institution, on the whole, is a great blessing to the community, and that its affairs are admirably conducted by its governors and its committees of management, we must reluctantly add—in all but one thing—the appointment and control of its attending physicians and surgeons.

We will not give our opinion concerning the practice of medicine within its walls, not that we have not noticed many errors, but that it would be useless to state cases where our diagnosis could possibly be called into question: in surgery, however it is different, for carelessness in it is too palpable to be denied; we will therefore enumerate some of these.

First then is the loss of life from blundering cases of lithotomy: in one, the artery of the bulb was divided, and the patient allowed to die from hæmorrhage; in another, the bladder was entered through the trigone, the prostate remaining untouched, and death took place from infiltration of urine; in a third, after a long and unsuccessful attempt to reach the staff, the unskilful surgeon most wisely repented, and handed the knife into abler hands to complete the section. We were present at the second mentioned, and at the autopsy. We have also witnessed lately some very bad operations for cataract. In one, the iris was cut into with the knife, and the eye hopelessly ruined; in another, the vitreous humour was allowed to escape with the lens, and the patient rendered blind for life. We have been present too when the whole eye has been abstracted unnecessarily, as we thought, and without benefit to the patient. We have witnessed a case of fracture of the femur which was allowed to ossify with much shortening, and which was refractured by an elder practitioner to save the credit of the hospital, but unfortunately this excellent man has not always been at hand to shield its doings, for two of its cases have lately been rectified at the Hotel-Dieu: one, a fractured tibia was straightened that had been permitted to grow together in an angular position; the other, the case reported on page 29 of this periodical, was a fractured arm which had been allowed to go out with a piece of dead bone pressing upon the blood-vessels and nerves of the part, to the great discomfort of the patient and discredit of this charity. Not long since, in an operation for the removal of a tumour from Scarpa's triangle, the femoral vein and other important vessels were divided, and the patient bled to death from the carelessness.

Two deaths have occurred from chloroform one from the want of a stimulant before its administration, and although we do not know the cause of the other, for we were not present, we have ascertained that, as with the first, electricity has not been available for resuscitation until too late to be of any service. The spine case which bade so fair for an excellent ossification was allowed to become displaced, and the poor man thereby robbed of his only chance of recovery.

It will be noticed that we have been eye-witness of many of these misfortunes, although by no means, a constant attendant on the hospital. We cannot answer for how many similar ones have occurred in our absence, and we are afraid that these surgeons will not enlighten us in this matter. It is but a week or two since we were informed of a case of death from ovariectomy; we do not know but that the operation was well performed, but we have been refused the notes of the case on the plea that the surgeon did not desire to have it noticed.

But who are these men who thus hold appointments for which they are so incompetent? With shame we confess that they are professors and clinical teachers in McGill College, or aspirants to its honours. We therefore call upon the leaders of this institution for some new rule by which to remove these blights upon its fame, or at least to adopt some energetic course to prevent such men from ever again disgracing it by like operations. Justice demands the appeal, although past experience has shown that it will be useless.

But we have other means of checking this sacrifice of human life,—these outrages on our poor. This hospital is a public institution, receiving annual grants from government, and liberal contributions from our citizens, nay more, is itself a free and noble gift to us from men whose names can never be forgotten. We have therefore a right to insist that our sick poor whom we send to it for protection and care should have the best of medical attendance. As the guardians then of these and of the public welfare, it behooves us to enquire into the causes of such accidents, and the best mode of preventing them for the future.

Let the governors remedy, then, the first and greatest error—of placing this hospital so completely, even to the very secretaryship, into the hands of medical men so closely bound together by one common interest and so incapable of managing even their own affairs—by listening no longer to their recommendations for the nomination of young physicians in preference to older and more experienced ones, whilst so many of the latter are both ready and willing to accept these appointments, and to give their truly valuable services gratuitously to the poor. And let those selected be independent men, who by their presence may act as a kind of check on the careless professor.

Let the secretaryship also be confided to some good honest citizen, who will not be interested in hiding errors of this kind, but who will afford every facility for free investigation into its affairs. We have ourselves experienced much difficulty in acquiring information on account of the secretary being a medical man, and connected with McGill University.

Let us employ no half-way measures in this matter, for, from long indulgence, these professors consider that they have a right to control our hospital, forgetful that they are but as invited guests, and

entitled to remain only so long as they perform their duty faithfully. Let a strict rule then be established that every surgeon who destroys life through ignorance of anatomy, or by culpable negligence, be summarily dismissed. For no excuse should be accepted for operations thus badly performed, for the rules of the hospital give them unlimited privileges in making post-mortem examinations, besides which they have a dissecting room in their college; they should therefore prepare themselves by study, if otherwise incompetent or inexperienced, before risking the lives of their fellow creatures. This rule alone would be found to produce an immediate and marked improvement in the surgery of the hospital.

And finally let there be a rule established here as in Europe, that all operations must be performed on certain days of the week, except in cases of urgent necessity, and that physicians generally be advised of them, and invited to attend and see that these men do their duty.

New Books.

A PRACTICAL TREATISE ON THE ETIOLOGY, PATHOLOGY AND TREATMENT OF THE CONGENITAL MALFORMATIONS OF THE RECTUM AND ANUS. By William Rodenhamer, M.D. With plates. Published by S. S. & W. Wood, New York, 1860.

The style of this author is concise and agreeable, and his subject interesting; his work will well repay perusal, although its immediate study may not be required. Unfortunately it belongs to that class of books which a physician, having no cases of the kind to treat, feels indifferent in possessing, and scarcely willing to admit as necessary. It shows itself forth however in bold relief as one of the most important and useful, when he is called to operate on some unfortunate child thrown suddenly in his charge. Glad of the opportunity of examining its valuable pages, he will then agree with us on its extreme utility, and in considering that no medical library can be called complete without it. It is a large octavo of upwards of 400 pages, filled with beautiful lithographs; and besides separate and distinct treatises on the different species of malformation and their treatment, containing in elucidation of the subject, upwards of three hundred cases, gathered from every reliable source, classified, and tabulated. By these we find that of 156 on which operations have been performed, 87 have recovered: this is encouraging, for of 42 for which nothing had been done, all but twelve succumbed. Finally, fifty pages are devoted to the different modes of performing the operation for abdominal artificial anus, which are plainly illustrated by the lithographs. Nor can we close without remarking that in admiring this handsome volume we compliment its publishers; they too, richly deserve our praise.

Interesting Cases.

CURIOUS EFFECT OF TINCTURE OF IODINE.—A patient, an elderly man, having painted himself with strong tincture of iodine, on the side a little above the hip, for the relief of pain, soon afterwards experienced a severe burning in the part. A poultice was directed, which although it removed the greater portion of the metalloid, rather aggravated than relieved the distress. Cold water, saturnine solutions, infusions with opium, and the various kinds of ointments, not only failed to alleviate, but

gave the sensation of being scalding hot. In a few days three angry looking ulcers formed where the iodine had been applied; the burning however still continued, and every thing, even ice itself, felt to him like molten lead. All that ingenuity could suggest proved unavailing to relieve this symptom for upwards of three weeks, when a mixture of chalk with lard was prescribed as an experiment; this acted in a most extraordinary manner by completely removing the pain in less than an hour; it however returned somewhat after a time. This ointment was continued to cicatrization, which was unusually tedious. At each time of dressing, the feeling produced by the cool salve was described by the patient as delightful.

I have been informed by a brother practitioner that in another similar case, when the excessive pain was in the integument of the scrotum, every application proved useless until the part was bathed with cream.—*Editor.*

RICINUS COMMUNIS

THE LEAVES OF THE CASTOR-OIL PLANT AS A GALACTAGOGUE.

By C. H. F. BOUTY, M.D., M.R.C.P.E., M.R.C.S., Physician to the Samaritan Free Hospital for Women and Children.

The galactagogue properties of castor-oil leaves were known to the Spaniards of Peru and Chili. M. Frazier, engineer in ordinary to the French king, in his narrative of a voyage to those parts, performed during the years 1713-14, stopped for some days at San Vincente, one of the Cape de Verde islands. In his description of that island, he states, that among other plants he saw there the Palma Christi or Ricinus Americanus, by the Spaniards in Peru called Poterilla; and they affirm that the leaf of it applied to the breasts of the nurses brings milk into them, and applied to the loins draws it away.

The employment of castor-oil leaves as a galactagogue in this country, dates since 1850. In a paper read before the British Association, at Edinburgh, in 1850, and afterwards published in the Lancet, Dr. McWilliam, brought the effects of this remedy before the profession. "The leaves of this plant in Bonavista in the Cape de Verde Islands are known as the Bofeiraira, which is in reality the Ricinus Communis of botanists, and occasionally the leaves of the Jatropha Curcans, both belonging to the natural order of Euphorbiaceae. Two kinds are known in these islands, the red and the white. They are both varieties of the same plant, but the red is avoided by the natives, the former being said to be galactagogue in its properties, the latter eminently emmenagogue.

In cases of childbirth, where the appearance of the milk is delayed, a circumstance of not unfrequent occurrence in those islands, a decoction is made by boiling well a handful of the white Bofeiraira in six or eight pints of spring water. The breasts are bathed with this decoction for fifteen or twenty minutes. Part of the boiled leaves are then thinly spread over the breast, and allowed to remain until all moisture has been removed from them by evaporation, and probably in some measure, by absorption. This operation of fomenting with the decoction, and applying the leaves, is repeated at short intervals until the milk flows upon suction by the child, which it usually does in the course of a few hours.

On occasions where milk is required to be produced in the breasts of women who have not given

birth to or suckled a child for years, the mode of treatment adopted is as follows:—Two or three handfuls of the leaves of the *Ricinus* are taken and treated as before. The decoction is poured, while yet boiling, into a large vessel, over which the woman sits, so as to receive the vapour over her thighs and generative organs, cloths being carefully tucked around her, so as to prevent the escape of the steam. In this position she remains for ten or twelve minutes, or until the decoction cooling a little, she is enabled to bathe the parts with it, which she does for fifteen or twenty minutes more. The breasts are then similarly bathed, and gently rubbed with the hands; and the leaves are afterwards applied to them in the manner already described. These several operations are repeated three times during the first day; on the second day, the woman has her breasts bathed, the leaves applied, and the rubbing repeated three or four times. On the third day, the sitting over the steam, the rubbing, and the application of the leaves too, with the fomentation of the breasts, are again had recourse to. A child is now put to the nipple; and in the majority of instances, it finds an abundant supply of milk. In the event of milk not being secreted on the third day, the same treatment is continued for another day; and if then there still be want of success, the case is abandoned, as the person is supposed not to be susceptible to the influence of the *Hofareira*.

Women with well developed breasts are most easily affected by the *Hofareira*; when small and shrivelled, the plant is said to act more on the uterine system, bringing on the menses, if their period be distant, or causing their immoderate flow, if their advent be near.

Dr. McWilliam gives the cases of three women in whose breasts milk was induced by the employment of the *Hofareira*; in all of which pregnancy had occurred some years previously.

Dr. Tyler Smith has made some experiments upon the use of this plant. He tried the effects of the leaves in five cases, in three of which it proved successful. In one it produced a copious flow of the catamenia, in another leucorrhœa. From his experiments he believes that the castor-oil leaves, applied externally, have distinct galactagogue effects. He followed out in his experiments the descriptions given and quoted above from Dr. Williams' paper, but did not apply the steam of the decoction to the generative organs; nor does he appear to have given it internally.

I believe I am the first who has used castor-oil leaves and stalks internally as a decoction in this country. I was led to do so from having frequently observed that suckling women, after taking a dose of castor-oil, noticed that they secreted a larger quantity of milk, a result which I certainly cannot entirely attribute to the removal of accumulated fecal matters; because I have not seen the same full effect from the use of other purgatives. Dr. Tyler Smith alludes to this effect having been noticed by others, although, he adds, it may do this by moderating febrile excitement. It occurred to me, therefore, that in defective lactation, the exhibition of castor-oil leaves and stalks in a decoction might produce, or more directly cause, a flow of milk. I have now given the remedy in several cases, and I must say I have not been disappointed. The flow has been remarkably increased. A few objections against its use, however, should be mentioned.

Some patients complain while taking it of a sensation in the eyes, not exactly amounting to pain, but accompanied with dimness of sight. I do not think this is due to any peculiar effect of the castor-oil plant. I have only noticed it in weak women; and rather attribute it to the force of the flow of the secretion, an effect exactly analogous to that which is observed in nurses who have suckled too long, when the child takes the breast.

A second is that the dose after a time requires to be much increased, as the remedy appears to lose its effect. A temporary suspension, and the substitution of another galactagogue, remedies this inconvenience.

A third objection is the difficulty in procuring the leaves or stalks in sufficient quantity. It appears that they are not imported into the country and all those that can be obtained are produced from botanical gardens. The larger number employed by me came from that of Mr. Butler, of Covent-Garden. The importance of this remedy as a galactagogue, will doubtless ere long cause its importation, or growth in larger quantities.

The last objection applies to an occasional effect observed after its administration. The roots of the decoction were before said to be diuretic. The leaves in decoction are occasionally so also. I have heard of two examples. In the one so far as I could hear, a large quantity of water was daily passed under its influence, and it did not appear to produce any increase of the secretion of milk. In this case, however, I am not aware if the breasts were kept warm. If not, it is conceivable that an effect similar to that observed with diaphoretic should occur. These remedies, it is known, will not act as sudorifics if the surface of the skin be kept cool, but as diuretics. If an analogous explanation applies to galactagogues, it points out the importance of keeping the breasts very warm when the decoction of castor-oil leaves is given internally. Moreover, we are led to this mode of management by noting the manner in which the remedy is employed in Bonavista. Hot fomentations of the leaves are there always applied locally to the mammary region. Where this diuretic effect is produced, it is well therefore to smear the exterior of the leaves over the breast in the same manner as a belladonna extract is sometimes used, with warm ordinary poultice outside it, and this combination will probably fulfil all the indications in the treatment. In the second case, both the secretion of the urine and the milk were much increased, and to such an extent as to make it obligatory for the sake of the patient's strength to discontinue it. I am not aware, as both of these cases occurred in the practice of others, whether hot fomentations were also applied to the breasts. The breasts as a rule should always be kept warm, when this remedy is given; and when the diuretic effect is produced, not only kept warm with poultices, but smeared over with extract.

When the castor-oil leaves are given as an induction to women who are not suckling, I have observed two effects, both of which seem to denote its specific action. First, it produces internal pain in the breasts, which lasts for three or four days. Then a copious leucorrhœal discharge takes place, after which the effect on the breasts entirely disappears. During the duration of the pain at the breast I make no doubt that, if a child had been applied, the suction would have determined the lacteal secretion. This, however, is an experimen-

to which I have never found a patient willing to submit herself, and so have not been able to prove.

I have never yet observed any very decided action of the leaves as an emmenagogue. In some women it seems to possess scarcely any influence. The preparations of this drug which I have used have been a strong decoction or liquor, and an extract, the dose of the former being from one to two drachms daily, in water; of the latter five grains.—*Work on Infant Feeding.*

GUN-SHOT WOUNDS OF THE KNEE-JOINT.

Dr. Lidell, of Stanton Hospital, Washington, in a communication to the American Medical Times, says:—It sometimes happens that a musket-shot hits the knee in such a way as to open the joint to greater or less extent, without breaking bone, and the patient gets well with a good limb. I have seen three cases of this kind, all of which terminated favorably. But if the articulating end of either the femur or the tibia happens at the same time to be splintered by the bullet, the nature of the case is entirely changed. The patient will not make a good recovery. Sooner or later the joint will swell up, and become highly inflamed; great constitutional disturbance will also be developed, and the patient will ultimately lose his life if the limb be not removed by timely amputation.

The most dangerous cases, however, are those wherein the bullet enters the limb at a distance (greater or less) from the joint, and without opening the cavity of the synovial membrane, or perhaps without even coming into relation with it, shatters the bone in such a way that the fissures extend to the cartilage covering the articulating end of the bone, or even into the synovial cavity itself if the splintering happens to be very great. The danger of these cases is much increased by their insidious character. The patient may do well for eight days or even two weeks after he is wounded, and then of a sudden be seized with great pain in the joint, followed speedily by heat, tenderness, and much swelling; at the same time he has constitutional disturbance in the shape of surgical fever and great restlessness. If the traumatic origin of this acute arthritis happens to be overlooked, and if the case be put under treatment as if it had begun spontaneously, the inflammation will extend rapidly from the joint to the thigh, and in a short time involve it so extensively, that, if the surgeon shall now wish to remove the limb by amputation, he cannot find healthy tissues through which to operate; and before long the thigh will be converted into a vast abscess communicating with the joint. These are the so called cases of secondary inflammation of the knee-joint, and are certain to turn out badly if the limb be not amputated in season. As soon, therefore, as this form of traumatic arthritis develops itself, its exceedingly dangerous character should be recognized, and the limb cut off before the inflammation has had time to spread through the thigh in the form of diffuse cellulitis. In all such cases amputation must be performed early, if it be expected to save the patient.

With regard to the treatment of gun-shot injuries of a general of the knee-joint, I believe that in all cases of wounds of the soft parts alone, whether the synovial sac be opened or not, an effort should be made to save the limb, provided the loss of substance is not great. For this purpose the patient should lie still in bed, and have ice constantly ap-

plied to the seat of injury, quietude and ice being the most reliable agents for cure in such cases. If, however, the loss of substance be extensive, as in case of certain wounds inflicted by the explosion of shells, primary amputation should be performed. Again, if the bullet pass completely through the joint, cutting simply a groove on the articular surfaces, without comminution or splintering, I believe it to be our duty to try to save the limb; but if severe arthritis should supervene, it will then become our duty to amputate without delay. In all cases of wounds in the neighborhood of the knee-joint, associated with comminution and splintering of the articular end of either the femur or the tibia, amputation should be performed as soon as the diagnosis is made out.

RENNET WINE

By DR. GEORGE ELLIS, DUBLIN.

About two years since, failing to obtain any benefit from the pepsine then usually sold, I had recourse to the direct preparation of a solution of gastric juice from the calf's stomach; and so gratifying has been the result, so satisfactory and remarkable its effects as a remedy in gastric derangements, that I wish to communicate to the profession the mode of preparation which I have found the most convenient, and the best for every purpose.

Take the stomach of a calf fresh from the butcher; cut off about three or four inches of the upper or cardiac extremity, which, containing few glandular follicles, may be thrown away. Slit up the stomach longitudinally: wipe it gently with a dry napkin, taking care to remove as little of the clean mucus as possible. Then cut it into small pieces, the smaller the better, and put all into a common wine bottle. Fill up the bottle with good sherry, and let it remain corked for three weeks; at the end of this time it is fit for use.

Dose.—One teaspoonful in a wineglassful of water immediately after meals.

Test of Quality.—One teaspoonful will solidify, to the consistency of blanc-mange, in from one to two minutes, a cup of milk (say eight to ten ounces), at the temperature of 100° Fahr. In this action on the caseine of the milk, it may be said that the wine alone would have some effect, but wine will not solidify milk, nor will it curdle it at all except at a much higher temperature, and in much larger proportion than the above.

This preparation, which I propose to call "Rennet Wine," has many advantages over the watery infusion of rennet which is obtained from the salted and dried calf's stomach (used largely in cheese making). The latter is also a good preparation, solidifying milk in the same way while it remains fresh; but it is much more troublesome in the making, and in warm weather it soon begins to react on the animal matters contained in it, and becomes spoiled. For these reasons, it cannot conveniently be used in medical practice. Rennet wine, on the contrary, is so easily made, requiring no salting or drying of the stomach, is so inexpensive, and can so readily be prescribed in private and in hospital practice, that I have little doubt, when known, it will become one of the most valued remedial articles in the hands of the profession.

I recommend the employment of good sherry, because this wine has sufficient body to keep the infusion perfectly sound for any length of time, and is not so strong in alcohol as to suffer any apparent

loss of solvent power in taking up the active principle of the rennet.

To the physiologist, it is unnecessary to say, that this remedy should be given after or during, not before, meals. A single dose, given daily after dinner, I have found quite sufficient in the general run of cases requiring it. How this small quantity can act so speedily and effectively it is, perhaps, not easy to explain, when we consider the large supply of the gastric secretion necessary for the thorough digestion of an ordinary meal. The action is, probably due to those indirect chemical changes, called catalytic transformations, which some organic substances, by their mere presence and contact, induce in each other and in other proximate principles; and thus, perhaps, the conversion of a small portion of food into healthy albuminose by this small quantity of sound gastric juice, may induce the same healthy action throughout the stomach contents during the entire process of stomach digestion. It is at least equally difficult to explain the action and rapid extension of ferments generally, in their appropriate solutions.

I have often been forcibly struck by the magical effect of this small dose in removing offensive odor from the breath of young persons,—a distressing symptom, sometimes aggravated rather than relieved by purgative medicine; and I may also mention, that in one of these cases cod-liver oil was easily tolerated afterwards, though never before. It would be a mistake, however, to suppose that the oil is at all acted on by the gastric fluid. The oil globules of coagulated milk are seen, under the microscope, unchanged, though imbedded in the solidified caseine; and the digestion of oil, taking place only after passing the orifices of the pancreatic and biliary ducts, is entirely intestinal; but intestinal digestion itself must surely be influenced essentially by the healthy preparatory action of the stomach secretion on the albuminous compounds presented to it, and thus the digestion of oils and fatty matters, though not even commenced in the stomach, may be facilitated by their being mingled with the products of healthy gastric action, when submitted to the succeeding operations of the pancreas and liver. *Medical Times. From Braithwaite.*

To Correspondents.

Distilled Waters.—Peppermint and other waters, although retaining this name, are rarely distilled. They are made up extemporaneously by rubbing one drop of the essential oil with a few grains of carbonate of magnesia, stirring in gradually an ounce of water, and filtering. In prescriptions containing any other powder, the oil is triturated with it, and the mixture made up without the necessity of previous filtration.

To purify Lard.—To every eight pounds of lard, add an ounce of powdered alum, and a table-spoonful of common salt. Melt it in a water bath, stirring it frequently, until of the heat of the boiling water, when it must be skimmed and allowed to cool. Next, turn it out of the vessel, scrape off the sediment, and wash, and work thoroughly in a running stream of water.

S.—The Montreal General Hospital contains at present eighty-two occupied beds.

Fluid Magnesia.—Add three pounds of carbonate of magnesia to ten gallons of water, before putting it into a soda cylinder, and pump in the usual quantity of gas employed in making soda water, and you will have ten gallons of the finest saturated fluid magnesia, the directions for which will be the same as those for Murray's.

Medical Works published in Great Britain from the 15th October, to the 15th November, 1863, with their sizes, numbers of pages, publishers' names, and prices in sterling.

Beale (Lionel S.)—Urine, Urinary Deposits, and Calculi, and on the Treatment of Urinary Diseases. 2nd edit. post 8vo. pp. 464, 2s. 6d. (Churchill.)

Bird (S. Dougan)—On Australasian Climates, and their Influence in the Prevention and Arrest of Pulmonary Consumption. 8vo. pp. 174, 7s. 6d. (Longman.)
Gardner (W. T.)—Outline of the Principles of Recording Physical Diagnosis; for the use of Students and Medical Practitioners. 8vo. 1s. 6d. (Simpkin.)
Hewitt (Graily)—The Diagnosis and Treatment of Diseases of Women, including the Diagnosis of Pregnancy; founded on a Course of Lectures delivered at St. Mary's Hospital Medical School 8vo. pp. 654, 15s. (Longman.)
Hingston (James Ansel)—Topics of the Day, Medical, Social, and Scientific. Post 8vo. pp. 410, 7s. 6d. (Churchill.)
Hilton (John)—On the Influence of Mechanical and Physiological Rest in the Treatment of Accidents and Surgical Diseases, and the Diagnostic Value of Pain: a Course of Lectures delivered at the Royal College of Surgeons in England in 1860, 1861 and 1862. 8vo. pp. 500, 15s. (Bell.)
Holt (Bernard)—On the Immediate Treatment of Stricture of the Urethra by the employment of the "Stricture Dilator." 2nd edit. 8vo. pp. 116, 3s. (Churchill.)
Laycock (Thomas)—The Principles and Methods of Medical Observation and Research, for the use of Advanced Students and Junior Practitioners. 2nd edit. with copious Indexes of Diseases. Post 8vo. pp. 424, 8s. (Simpkin.)
Savory (W. K.)—On Life and Death: Four Lectures delivered at the Royal Institution of Great Britain. Post 8vo. pp. 208, 6s. (Smith & E.) A Physiological and medical work.
Winslow (Forbes)—Obscure Diseases of the Brain and Mind. 3rd edit. revised. Post 8vo. pp. 640, 16s. 6d. (Hardwicke.)

Periodicals received since 15th November.

Madras Quarterly Journal, April. London Medical Times to Nov. 21. Am. Medical Times to Dec. 12. Boston Med. and Surg. Journal to Dec. 10. Philadelphia Med. and Surg. Reporter to Nov. 25. Philadelphia Dental Cosmos, Dec. Buffalo Med. and Surg. Journal, Nov. Chicago Medical Journal, Nov. Phil. Med. News and Library, Dec. London Chemist and Druggist, Nov. Am. Druggists' Circular, Dec. London Publishers' Circular to Nov. 15.

Books and Pamphlets received during the Month.

The Functions and Disorders of the Reproductive Organs. By W. Acton, M.R.C.S. 3rd edition, 8vo. pp. 218. Churchill & Sons, 1862. From the publishers.

The Diseases, Injuries, and Malformations of the Rectum and Anus, with remarks on Habitual Constipation. By J. Ashton, F.R.M.C.S. 4th edition, 8vo. pp. 411. Churchill & Sons, 1863. From the publishers.

Asthma, its Pathology and Treatment. By H. H. Salt, M.D., F.R.S., F.R.C.P. Physician to Charing Cross Hospital, and Lecturer on Physiology and Pathology at its Medical School. 8vo. pp. 372. Churchill & Sons, 1860. From the author.

A Treatise on the Pathology of the Urine, including a complete guide to its Analysis. By J. L. W. Thompson, M.D. 8vo. pp. 429. Churchill & Sons. From the publishers.

Manual of Ophthalmoscopic Surgery. By Jabez Hogg, senior Asst. Surgeon to the Royal Westminster Ophthalmic Hospital. 3rd edition, 8vo. pp. 298. Churchill & Sons, 1863. From the publishers.

Seventh Annual Report of the United Lunatic Asylum of Nottingham.

Some valuable pamphlets from Dr. T. Skinner of Liverpool, on Chloroform in Midwifery; on Fistula and its local therapeutic Treatment; and on the Granulation of Mucines.

Subscriptions paid since 15th November.

Dr. W. H. Brouse, Dr. Easton, and Dr. W. J. Jones, all Prescott; Dr. H. A. Gordon, and Messrs. A. J. and J. Brockville; Dr. J. A. Macdonald and Dr. Thomas Kingston; Dr. G. J. Potts, Omemee; Thos. Carr, St. Stratroy; Dr. A. G. Walter, Pittsburgh, Penn.; Dr. B. P. Spencer, Watertown, N. Y.; Dr. Angus McDonald, Dr. Gauthier, Dr. Dagenais, and A. G. Davidson, Esq., all Montreal; Dr. C. H. Boynton, Wells River, Vt.; Dr. Becker, Belmore.

DEATH.

In this city, on the 4th inst., Alexander William Arth Delisle, Esq., M.D., aged 33 years and six months.

Dr. Delisle was one of the few Canadians who did serve in the Crimean war, as Assistant Surgeon in Her Majesty's forces.

The Canada Lancet is published monthly at the rate of one dollar, (or four shillings sterling) per annum. Remittances may be made to W. E. Bowman, M.D., Editor and Proprietor, or to Mr. John Lovell.