

## Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- Coloured covers /  
Couverture de couleur
- Covers damaged /  
Couverture endommagée
- Covers restored and/or laminated /  
Couverture restaurée et/ou pelliculée
- Cover title missing /  
Le titre de couverture manque
- Coloured maps /  
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) /  
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations /  
Planches et/ou illustrations en couleur
- Bound with other material /  
Relié avec d'autres documents
- Only edition available /  
Seule édition disponible
- Tight binding may cause shadows or distortion  
along interior margin / La reliure serrée peut  
causer de l'ombre ou de la distorsion le long de la  
marge intérieure.
- Additional comments /  
Commentaires supplémentaires:

Continuous pagination.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /  
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/  
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /  
Qualité inégale de l'impression
- Includes supplementary materials /  
Comprend du matériel supplémentaire
- Blank leaves added during restorations may  
appear within the text. Whenever possible, these  
have been omitted from scanning / Il se peut que  
certaines pages blanches ajoutées lors d'une  
restauration apparaissent dans le texte, mais,  
lorsque cela était possible, ces pages n'ont pas  
été numérisées.

# THE CANADA MEDICAL RECORD.

VOL. XI.

MONTREAL, JULY, 1882.

No. 10

## CONTENTS.

### ORIGINAL COMMUNICATION.

Hygiene of Out-Door Sports, 217.  
—Tubercle-Bacillus..... 226

### PROGRESS OF MEDICAL SCIENCE

Diabetes Insipidus and Diabetes Mellitus, 227.—The Germ of Tuberculosis, 228.—Diabetes its treatment, 229.—Therapeutical Action of Ergot, 230.—Boracic Acid Powder for Granular Lids, 232.—On Linimentum Crotonis in the Treatment of Acute Bronchitis, 233.—The largest Man in America, 233.—The Treatment of Ringworm, 233.—Hernia Radically cured by the use of Hy-

podermic Injections, 234.—Suppositories of Ergotin, 234.—Treatment of Infantile Diarrhoea by Powdered Charcoal, 234.—Cod Liver Oil in Epilepsy, 235.—Aspirations of the Gall Bladder, 235.—The Treatment of the Vertigo of Bright's Disease, 235.—The Abortive Treatment of Buboes with Carbolic Acid, 236.—The Proper method of Administering the Bichloride of Mercury in Syphilis, 236.—Some points in the Treatment of Fractures, 236.—Acute Cystitis Treated with Ergot.... 236

### EDITORIAL.

Guiteau, 237.—Consultations with Homeopaths, 238.—College of Physicians and Surgeons, 239.—A very Juvenile Murderer, 239.—Papoma, 239.—An Important and Seasonable Remedial Agent, 240.—American Delegates to the British Medical Association, 240.—The Journal of the American Association, 240.—A Ten Ounce Baby, 240.—What Lunatics think concerning the Responsibility of the Insane, 240.—Mortality of Montreal for the Month of June, 1882..... 240

## *Original Communications.*

### HYGIENE OF OUT-DOOR SPORTS.

BY JAS. PERRIGO, M.D., M.R.C.S. ENG.,

Professor of Surgery Bishop's College.

A lecture delivered before the Young Men's Christian Association, December 6th, 1881.

Mr. Chairman, Ladies and Gentlemen,—It has fallen to my lot to give you a lecture to-night on the hygiene of out-door sports, or, in other words, to tell you something of the manner in which these sports should be indulged in so that your health will be improved and not injured by them. Some of you may smile at the hint of the possibility of a person's health being injured by out-door sports, as most people are led to believe they can do nothing but improve a person's health. I have nothing to say on the subject of out-door sports but what is commendable, but I have something to say on the abuse of them, and a good deal to say of the accessories that accompany that abuse. Here, in Canada, we have been fortunate in inheriting most of the sports of the Mother Country, not only the sports themselves, but the love for them as well; and I think you will agree with me, the people in England, from the events of the last two years, will confess that the Dominion, whether on water or on land, can shew representatives of whom she is not a little proud. Some of the sports of the Old Country are not much followed here, for the simple reason our young men have neither the time nor the money to do so. In this country,

which is young, we have to work for our living, and in doing so we are helping our country to progress, so that what time is given to out-door sports is snatched, as it were, from the wear and tear of every-day life, and herein lies the danger of abusing them, that is, of attempting to do too much in a short time, without sufficient preparation. It is a sorrowful fact that the few young men of Canada who have inherited wealth from their parents, are generally poor specimens of manhood. They do not care for anything that helps to build up a nation. They take no pride in a fine breed of horses; to be in a well-built yacht would be a nuisance to them; to have a well-stocked farm and to take pride in it is foreign to their nature; their only pleasure and occupation appearing to be, to spend recklessly, the wealth their parents worked so hard for. In addition to the sports we have inherited from the Mother Land, we have those that are peculiar to our country, and can be truly called Canadian. I refer to lacrosse, snow-shoeing and tabogganing. Cricket playing is well implanted here, but it does not seem to have taken root as deeply as it has done in England. There appears to be a growing desire for yachting, but that is limited to a few who have the means and the time to indulge in it. For those who can, there is no recreation that affords such health-giving exercise. Boating or rowing nearly all can take part in, as there are splendid opportunities close to the city for its exercise.

We have also foot ball, base-ball and other minor sports that claim their share of patronage from the young men of this city. They are all good, health-giving pastimes when properly indulged in and not abused. The indulgence in these sports has several objects in view, two of which are the most important, viz., pleasure and health. Without the first, you cannot well have the other. The exercise should be of a nature to give pleasure, to be in harmony with the mental operations, a certain buoyancy of mind being required to give effect to muscular action. Without this you will not experience the amount of benefit you should. Now, among the great number of young men who are members of the different clubs of this city, how many are able to undergo the same amount of athletic exercise. Supposing there are 4,000 young men, members of the different clubs, how many of them would you find constituted alike. I venture to say, you would find very few of them exactly alike in physical strength and temperament; some you would find enjoying the best of health, possessed of strong muscular strength, who do not feel the daily fatigue of business very much, and who are quite able to join in the snow-shoe tramp in the evening, or practice at lacrosse in the early morning. Others again, you would see enjoying good health, but of a more delicate build, and not possessed of the animal spirits of the former to fully surmount all the worries of the day. Think you, that those who belong to this class are as well able for the snow-shoe tramp across the mountain, as it is now practised, or the lacrosse exercise as the former. Others again, you would see possessed of indifferent health, with irritable temperaments, who are worried by the slightest thing going wrong, and when evening comes are tired out; still, the longing for companionship and the idea that all or any kind of athletic exercise does good, they also join some club, and their courage makes them attempt to do as much as their more favored companions. Perhaps, they succeed, and they earn the plaudits of their friends as being plucky individuals. Plucky young fellows, they, no doubt are, but how much benefit to health has been derived from this strained exercise. It is more particularly on this point I wish to say something, to point out, if possible, in my humble way the dangers to be avoided.

To be able to indulge in athletic exercise in a manner to obtain all the possible benefit that is to

be derived from it, a young man, unaccustomed to it, and who is employed in a sedentary occupation, as three-fourths of our young men are, must begin by degrees and work his way systematically along, until he feels that he is able to perform feats with ease that would have previously distressed him.

Some may reach this point very easily and in a short time, and when they have done so are fine specimens of manhood, but is this the case with all? Others will reach it, after a longer course of training, and if it has been carried out with prudence, will be improved by it, but there will be a majority who will never be able to reach the excellence of the first class, and who, by persistence in a system of over-training, will do themselves permanent mischief. Some of you, who are veterans in athletic exercise may smile and say you have heard all this before: well, perhaps, you have, but you may be more surprised when I tell you that a strong man may over-train, or commit some act of imprudence in his exercising that may prevent him ever having grey hairs. Often have I gone into houses in this city, when on my rounds, and have seen cups and medals adorning the side-board, won in this or that sport, and have asked, where are the winners? Some are prematurely aged, broken down in fact, and subject to palpitations of the heart; others are dead, some of them having died suddenly? Others again, and they are in the minority, still retain their vigor, because whatever they did in the way of training was done with prudence and system.

I read some time ago of a noted athlete of an American university dying suddenly from heart disease, and of the plaudits passed upon him by the press, but not one word of warning as to the cause of his heart disease, which was nothing else than prolonged excessive training. To this also may be ascribed the death of Renforth, with which you are all familiar. Our own city furnishes examples as well, and such have occurred in my own and the practice of my medical friends. I venture to say that if the different athletic clubs would examine their statistics for some years past, and see who were their prize winners and what was their condition at the present day, they would find I am not speaking too strongly. They would find the majority dead, from a sudden death, or dead from a short illness, and that only the minority were living. They would find this minority divided into two classes, a large and a small one. The large one would consist of some who were

nervous and irritable, who were easily fatigued by either mental or physical exertion, and some suffering from heart or chronic lung disease. The small class would consist of those still in good vigor for their age, enjoying good health—the reward of their prudence. You may think I am speaking too forcibly upon this point, but I assure you I am not. It is the strong convictions of a physician that force me to make these statements. I well remember attending the head of a family, who was a noted snow-shoe runner, who died two years ago from consumption. There were no traces of that disease among his relatives, as his family history was good. Over and over again, that man told me he wished he had his life to go over again, how he would have avoided excessive training, how he would have taken greater care of himself, going over the old, old ground, that we physicians have heard so often,—want of prudence and care of health. Health, ladies and gentlemen, is not valued until it is lost, and then how much we would give to regain it. I was much pleased some time ago at the news that Hanlan had decided to retire from future contests and praised his wisdom for so doing, and predicted a good long life for him, provided he was temperate and did not take up too quickly with a sedentary form of life. I regretted very much afterwards when it was announced that he was going to row other races. He should be satisfied with his position, one that is unrivalled in the history of rowing, and he should remember that the pitcher may go once too often to the well. He need not think of always remaining the hero of the public. Let him but lose a race, and he suddenly becomes an ordinary individual.

Want of prudence, in fact, gentlemen, the want of common-sense, in some of our out-door sports does as much, if not more, harm than over-training. Last year, I examined a young man who came into my office, complaining of short breath, and palpitations of the heart. His own physician was out of town. I found that he had a most irritable heart, acting in the most irregular manner, ready to go off at a tangent upon the slightest exertion. When I obtained his full history, I found his occupation was a sedentary one, being occupied in an office all day long, that he belonged to a snow-shoe club, that he was in the habit of joining members of it at the College gate, and going over the mountain at the double quick to Côte-de-Neiges, and he took some pride in telling me that he was

never the last, that the whippers-in had never to look after him. Now, what amount of benefit do you suppose this young gentleman had derived from this method of snow-shoeing? Remember, I say, method, I do not say snow-shoeing. I won't allow any one to say a word against this amusement. As an out-door sport, it is equal to any. Here is a young man, not 28 years of age, with little or no chance of muscular exercise, dashing at once into work that would cause a well-trained athlete a good deal of exertion. The course over the mountain to Prendergast's is not by any means the easiest to travel quickly on, and when the distance is covered at semi-racing speed by green-horns, nature inflicts a punishment, and this punishment, in a great many cases, is permanent. This young man attempted too much without any preparation, and his steam engine, his heart, has been permanently weakened by it. Why, a locomotive before attempting to take a train of freighted cars along an up-grade, must back up a good distance to get a good head-way. The engineer would never think of starting immediately at the foot of the hill. You will understand this much better when I tell you that in the ordinary state of a man's health, during ordinary exercise or occupation, a man's heart will dilate and contract, on the average, 72 to 76 times in a minute. This, you can tell by feeling your own pulse at the wrist. Buck says, in his work on Hygiene, that during moderately energetic exercise, the heart beats more frequently and forcibly, the arteries dilate, and a larger stream of blood is propelled through the body, but especially to the muscles, where the increased flow is required. If the exertion be very severe, the contractions of the heart become still more frequent, feebler and finally irregular, while at the same time, a peculiar form of dyspnoea or breathlessness is experienced which is familiar to you all, as "loss of wind." This distress in breathing is produced by disturbance of the equilibrium between the respiratory and the circulating organs, the disturbance in question being the combined result of several causes. When the equilibrium is restored the person is said to have gained his "second wind," and then he is enabled to continue his exertion up to the limits of muscular exhaustion.

Now, picture to yourselves, taking the young man we have been speaking of as an example, how his heart must have pumped the blood through his blood-vessels in his tramp at the double-quick

over the mountain, and how his lungs must have been embarrassed, in a state of semi-congestion, and the length of time it would take for everything to be quieted again, especially when the rest is taken in an atmosphere filled with tobacco smoke. Is that man's health benefited by such exercise, or has he been made more capable of attending to his business duties the next day? You will answer this, perhaps, more easily, when I tell you that such forced work entails a certain drain from the nervous system as well; the more nervous and irritable the temperament the man may possess, the greater is the drain. Supposing now the young man leaves his office at 6 o'clock in the evening, he has his supper by 7, and is then ready for the evening. He joins his club at the college gate, goes over the mountain in a leisurely manner, takes his warm coffee, has a good rest, and returns perhaps at a quicker pace, arriving home feeling brightened up, not fatigued and ready for a good sound sleep. Which is the better way, gentlemen, the first or this? Which method is likely to give the most health? Which do you think the Life Insurance companies would endorse? In fact I cannot say that I favor this racing across the mountain at all, for the very good reason that nine-tenths of the young men who do so have not the physical training to be capable of enduring that forced exercise, and I am satisfied the end of every snow-shoeing season sees some young men injured by it.

It may be surprising to you when I say there are some young men, not many, who are not fit, after a hard day's application to business, for athletic exercise. What they require is rest, rest enlivened by music or agreeable reading, and here is seen very forcibly the necessity of a public free library. If such men attempt athletic exercise, there is a double wear and tear upon their nervous energy which is soon felt, and instead of feeling benefited, they find a lassitude ensuing which is difficult to shake off, so that they have to exercise more will power to attend to their ordinary daily duties, until at last they are forced to give up what they should never have attempted. The young men belonging to this class can derive benefit from a well-conducted gymnasium, and I am happy to say we have two good ones in this city. Although the exercises in a gymnasium have not the advantage of the outside air, they can be made very pleasant and health-giving, particularly if the exercises are accompanied by music. One advan-

tage they possess, however, is the fact, the preceptor is always present, whose duty it is to make himself acquainted with the peculiarities of each pupil. Several of my young patients owe Mr. Barnjum a debt of gratitude for the good he has done them, and I take this opportunity of thanking him for the time and care he has bestowed upon them. I look upon a gymnasium as a necessity to every school in a city; in the country the same need for them does not exist, as there the scholars have long distances to go to school, and they have usually more out-door exercise than their cousins in the city. A school gymnasium is not so much for the purpose of giving the scholars larger muscles, but to keep them and every organ in the body in a healthy state of functional activity. If a task be made of these exercises, our object would be defeated, but care should be taken to make them a pleasant recreation. Music should always accompany such exercises. When conducted in this manner, boys and girls will always look forward with pleasure to the gymnasium hour. The presence of the preceptor will ensure the absence of danger, as, knowing the capabilities and wants of his pupils, he is able to govern their exercises accordingly. I trust our school commissioners will take this hint.

Over-exertion, gentlemen, will cause a good many things that you should be made acquainted with; of course, I mean in regard to both the trained athlete and the one unaccustomed to steady exercise.

First of all, it will cause irritability of the heart; this is evidenced by palpitation, breathlessness, pain over the region of the heart, and the pulse will be quickened. This has been frequently observed in troops who have been subjected to much forced marching; in fact, some years ago, when we had a large garrison stationed here, and the troops were marched around the mountain, or long distances in heavy marching order, frequently during the week, an army surgeon told me there were several such cases established, so much so that the general's attention was called to the fact, and the condition of marching was altered. Second.—Over-exertion may cause rupture of a valve of the heart. This is generally the aortic, and from this rupture, in time, secondary changes will take place which do not tend to improve matters. A person with a heart either in the first or in this second condition generally falls an easy victim to any serious acute disease that may attack him.

Third.—Over-exertion may cause an attack of hemorrhage from the lungs. One single over-strain in a delicate person, perhaps predisposed to lung disease, may do this mischief. Every physician can cite examples of this from their experience.

Fourth.—The aorta, the largest blood-vessel we have in our bodies, may have its walls so weakened at some particular point, that an aneurism at some future date may appear, the rupture of which would cause immediate death. Among laborers whose work is very severe this affection is not very rare, and the daily papers are frequently giving cases of sudden death in the streets, or on the wharves, when the Coroner's inquest shews it to have resulted from the rupture of an aneurismal sac.

Now, gentlemen, I have not mentioned these things to frighten you, nor to make you feel as some medical students do, who fancy, during their first session, they have every disease that is lectured on, but simply to point, out several reefs and sunken rocks that are to be encountered and avoided while indulging in any of the out-door sports. I think it is right you should know these things, as it will set you thinking of the objects and advantages to be obtained from them.

Men very often need rest when after a hard day's harassing work they are fatigued, be it in an office, retail store, or what not, rather than athletic exercise. I do not mean all men, but a goodly proportion of them, particularly such as have irritable nervous temperaments. For such men to persist in aiming at the standard of those who are differently constituted is folly, and will surely lead to bad results. I could tell you of the case of a prominent member of the bar, but recently deceased, who after a hard day's work in pleading difficult cases, cases, perhaps, that involved a great deal of thought, would habitually walk eight or ten miles every evening, when he should only have walked three, and that too when he had rested from the fatigues of the day.

Physical exercise, gentlemen, means also a certain drain or demand upon our nervous energy which is derived from our nerve centres, and if we drain the latter pretty well by the work of the day, as in the case of the advocate, and make another call upon them in the evening by too great physical work, we turn the old adage of "too much work and no play making Jack a dull boy" into one of "too much work and too much hard play making Jack, sooner or later, an invalid." None of you

wish to be dull, and I am quite sure none of you wish to be invalids, so that bear in mind the fact that by the exercise of a little caution and prudence you may really obtain pleasure and health from out-door sports.

I would not have a race of effeminate young men in the city, who, without stamina and courage, would hesitate to soil their boots with mud, who would think more of the appearance of their neckties than the condition of their muscular system, and who would rather criticize the dresses worn at a ball than the merits of individual players in a well-fought lacrosse match.

There are dangers in every sport and out-door pastime, but these can be reduced to a minimum by skill, and this skill can be acquired by prudent systematic training, under experienced guiding. There are many amusements, indulgence in which is more ruinous to health than imprudence in out-door athletic exercise. Dancing in warm badly-ventilated rooms perhaps carries off, indirectly, more victims than any out-door sport, and perhaps our skating masquerades are not guiltless in this respect.

Out-door sports are a necessity in every city, and it behoves the captains and the older men of the different clubs to see that the new members or those of a weakly constitution do themselves no harm. Most of the sports we have in Montreal can all give increased strength and health when properly followed, and I would not do or say anything that would lessen their importance. It is quite true the time to indulge in these sports is limited, and it is equally true we all have to work very hard for our living. Men, in 1881, are not so content to live and die in the same condition as their parents. They have more ambition, and are always aiming to climb higher the ladder of life, so that competition is keener in every line of industry. There is a feverish haste to become rich. This must be the reason that the retail merchants keep open to almost all hours of the evening, with jaded clerks behind the counter, who read of these sports but who can never join in them. Another reason, perhaps, is the fact, the retailers are afraid of a great tyrant, the public, who will purchase things just at whatever hour it suits, but I think if the retailers, who were once young men, would act in a concerted manner, and tell this tyrant that, as this was a land of liberty, their stores would be closed by such an hour, say 7 o'clock, and that all purchases must be made before that time, this

tyrant would be obliged to give in, so that not only the clerks but the employers themselves would be in a position to derive some pleasure and relaxation by taking part in some of our out-door sports; the clerk taking his snow-shoe tramp, and the employer a merry drive around the mountain. To aim at this, gentlemen, is good healthy ambition, and when attained means good health and a long life of usefulness.

A pastime that proves a source of pleasure to a great many is tabogganing. Unhappily, a good many accidents have occurred, which have restrained parents giving to their sons and daughters the permission to indulge in it. Last winter I had two fractured limbs to attend to, the result of injury while tabogganing, and medical friends have told me they also had injuries under their care from the same cause.

There is no reason why accidents should occur in tabogganing, as those I had to deal with were the result of sheer thoughtlessness. They occurred on a hill that is by no means considered dangerous. Want of regulation of the parties on the hill was the root of the evil, and I am glad to see there is now a tabogganing club started, and I hope the members of it will have sufficient influence to persuade our City Fathers to grant grounds on the Park for this sport; and that when the ground is granted there will be certain regulations instituted, so that collisions will be avoided, and one taboggan will not be attempting to telescope another. I should like to remind our City Fathers, as I have done the retail merchants, that they too were once young and dearly loved some recreation, and if they expect Montreal to retain her prominent position in the future it will have to be by the energy and activity of the rising generation. This energy and activity can only exist where there is health, and if, while attending to the welfare of the community at large, by cleaning streets, improving drains, and censuring the scavengers, they were to take some thought of those who were likely at some future date to fill the Aldermanic chair, they would need have no fear of the future of the city. In other words, it is the duty of the council to provide grounds of recreation for the young, not so much for those who are rich, but for the poor and middle classes.

A sport that can be truly called "national" is lacrosse; when divested of all unnecessary roughness, it is, in every sense of the word, a scientific game. I well remember when such was not the

case, when it was the ambition of each player to see his opponent stretched on the ground, and many a time have I been made in a most undignified manner to study astronomy, and often have I attempted to make others do the same. Now all this is changed, and both the skill and agility of our best team are well known outside of Canada. Some of our clubs practice in the long summer evening, or in the later part of the afternoons, but a good many of them practice in the early morning, and here it is, where some caution is necessary. Much will depend on habit, as regards violent exercise before breakfast, but in a great many cases it prostrates a man for the rest of the day. Hard work should never be attempted on an empty stomach, nor after a full hearty meal. To attempt hard physical or mental work after a full meal is to take away some of the nervous stimulus that should go to the digestive organs, and the door is opened for many digestive ailments that are discouraging to both patient and physician. On the other hand, it is equally harmful to do much physical work on an empty stomach, when the system is least prepared to endure it. These are the two extremes, and one is as damaging to health as the other. Some light food should be always taken by those who attend the early morning practice of lacrosse, or who take part in other sports at the same hour. A tumbler of milk, nature's food, with some stale bread is about the best. If this be done, the players will find they experience no feelings of languor nor will they suffer from headaches during the after part of the day.

This rule may appear very simple and elementary to you, but it is, nevertheless, an important one

During the summer months it is the custom with most of our large establishments to give holidays to their employees, and it becomes a question of some importance with the young men how these holidays are to be spent. Some go to the seaside, some to the country, and a few to some lake or river in the woods to try their hand at camping out, with hunting and fishing. Some follow the bent their inclinations lead them, while a good many consult the depth of their purse, and act accordingly. Two years ago, a medical friend, with two companions went on a fishing expedition to the Lakes, about 40 miles north of Maskinonge. They camped out the whole time, two weeks, and returned, well-recruited in health, and better men in every way. Last year, my friend went to the

sea-side and returned, he said, feeling not at all recruited from his trip. Being a man of very active habits, the lounging a person has to indulge in at the seaside did not suit him, and he told me he would prefer to spend treble the amount to go to the bush than to return to the seaside with his expenses paid. A good many refrain from taking a camping-out trip on account of the expense, but the expenses of the three gentlemen mentioned did not amount to more than \$20.00 each, in this being included the expenses of a guide.

Men who have never camped out must not think they will have a luxurious time of it, nor is it the romantic work that most writers on sporting subjects would have us imagine. It means hard work, sometimes privations through accidents, exposure to all sorts of weather, and I am quite sure if your employers were to compel you, as a part of your duties, to camp out a portion of your time, you would consider yourselves very ill-used individuals, but, if you have the right metal in you and have a strong love for the woods, the difficulties encountered in camping-out can all easily be surmounted. I admit for one man to go alone, well equipped with all essentials, the trip is expensive, as game is fast receding to greater distances from the cities, but when a party of congenial spirits can be formed, the expense for each one becomes less than a trip to the sea-side, and a much greater return of health for the money is received. I may, perhaps, be a little enthusiastic upon this subject, but I consider a holiday in the woods far superior to loitering time at a sea-side resort. To be fond of this kind of recreation you must be a lover of nature. You do not go into the bush with the single idea of killing game and bringing home a big bag, but you go prepared to enjoy nature as she is seen in the wild woods.

You will find, if you are of an observing nature, plenty of objects never before thought of to attract your attention and interest. For me I confess there is a fascination in it that no other sport can afford.

Few people in this city have the slightest idea of the scenery that is to be seen in the different tributaries of the Ottawa river, nor have they any conception of the number of beautiful lakes that exist. Most of these districts are well stocked with different kinds of fish and game, but I am afraid that unless the Government takes some decided steps to prevent the wholesale slaughter that is continually going on, they will soon be things of the past. The German and the Polish settlers are the worst

offenders. There are large bodies of these people settled in the districts that I am most acquainted with, and their numbers are continually increasing. They are the most ruthless destroyers of game I have ever met. They are worse than the pot-hunters, as the latter hunt for the market and the other for the mere sake of killing.

To enjoy camping out, and to derive all the good you can from it, you must go well prepared for it. A good tent for yourselves and a smaller one for your provisions are necessary. Good Cornwall blankets, rubber blankets and changes of clothing are all required. A portable coal-oil stove, made for the purpose, is now generally used at camps, and is found more useful than the usual open fire, although the log-fire is cheerful and comfortable to have the evening chat around, and fight the day's work over again. If you have the open fire care must be taken that it is at a safe distance from the tent. Carelessness in this matter has destroyed the pleasure of more than one camping expedition. In selecting a camp-site, your first duty is to select a sheltered locality in close proximity to good drinking water. If you are on a lake shore, or the bank of a river, you will have no difficulty in this respect. For further details upon the necessary articles for a camping expedition, I would refer you to the many excellent manuals upon this subject.

I have said there are precautions to be taken in having all the articles required, but there are others as well. The dangers of camping out are best understood by those who have had the experience of several expeditions, and they are not to be belittled by the superficial judgment of those who do not see dangers unless they are staring them in the face. One of the dangers is attempting to do things for which a person is physically unfit, thereby straining his heart and bloodvessels to such an extent that serious results ensue, although possibly they may not be felt at the time.

I have seen this done several times in portaging, where the canoes and their cargoes have to be carried to the next water. Some young men will start with a good load that they could with tolerable ease carry on one of our pavements, but when the portage track lies over a rough road, rocks, boulders, fallen trunks of trees, being in the way, up and down hill, or perhaps through a swamp, this load will be ten times heavier, and before a mile has been accomplished he will have to give up. By persisting in this work permanent



injury can only be the result. You do not go out two or three weeks camping for work that half kills you; you go for recreation and health, so, therefore you must attempt that only which you can comfortably perform, and have pleasure in the accomplishment of it. Another danger is getting heated and lying on damp ground afterwards to rest. This you will know yourselves is not conducive to a person's health. I have said you should have changes of flannel with you. This is important, so that when you come in to camp, perspiring after a hard day's tramping through the woods in pursuit of game, or wet from rain, you are in a position to change at once. This should be an invariable rule, and will greatly add to your comfort. A good rub down with a rough towel before putting on the dry clothing should be taken at the same time. When I first began 15 years ago to go on shooting expeditions, I well remember the discomfort I endured from neglect of these precautions. From neglect of these points, some fine young men have had to run the gauntlet of inflammation of the lungs and rheumatism. Rheumatism in some of its forms is a most insidious enemy, and when it has you once in its grasp is not in a hurry, under the best of treatment, to say good-bye. Some of the most obstinate cases of rheumatism I have ever met have been among shantymen, who, when they are exposed to rain, allow their clothes to dry on them. A good many will escape these dangers, but this does not lessen the fact that, for one that escapes, five suffer in one way or another.

Most young men when camping out indulge in bathing, and if they are camped on a lake shore the facilities for so doing will be all they can desire. A word or two upon this point may not be amiss. Apart from the question of cleanliness, we bathe for the purpose of improving or keeping in a good healthy condition the functions of the skin, thereby promoting the general tonic condition of the body. I have no doubt you all remember your first dip in cold water, the shock it gave, how you gasped for breath, and if you did not remain too long in the water, what a glow you felt all over after a good rub down. The effects of baths, either cold or warm, are produced by their action on the cutaneous nerves and vessels. A cold bath causes the capillary vessels to contract. By capillary vessels I mean the very small minute blood-vessels supplying the cutaneous surface, and when I tell you that you

cannot prick your skin with a pin without injuring some of them, you will understand the immense number that exist. When these vessels contract, the volume of blood in the internal organs is increased, and if this change takes place suddenly, by a dip into cold water, in an inland lake or at the sea-side a shock is experienced, accompanied by gasping and quickened breathing. If the dip be not too prolonged, and the body be quickly dried and friction employed at the same time, reaction ensues, that is, the cutaneous vessels dilate, the blood returns to the surface, and a decided warm glow is felt all over the body. This is the process that takes place in proper bathing in cold water, and is conducive to the promotion of a person's health. With warm water bathing we have nothing to do to-night.

Certain rules should be followed in bathing, and it is well you should be made acquainted with them:

1. Do not bathe on an empty stomach nor immediately after a hearty meal. Three hours should intervene, at least, between a hearty meal and a bath.

2. If you bathe before breakfast, take a tumbler of milk or cup of cocoa, before so doing.

3. Do not remain too long in the water, 15 to 25 minutes is quite long enough; to remain beyond this will only lessen the good effect of the bath. Remember that unless you feel a glow after your bath, no good has been received, but perhaps some harm has been done. At the sea-side, or in the current of a river, 20 minutes is quite long enough, as the temperature of the body is lowered more rapidly where the water is in motion. Whenever cold bathing is followed for several hours by coldness of surface, blueness of lips, feeble pulse, headache and weakness, its use should be discontinued. Such symptoms you will see in the weakly and debilitated: the reaction or glow is imperfectly effected, and the cold bath acts injuriously. These same symptoms will follow remaining in the water too long.

4. Do not cool off before going into the water, you require all the heat in your bodies to secure a vigorous reaction. You will hear of people strenuously warning bathers to cool off before bathing. This idea has long ago been exploded. There is no danger but positive benefit in plunging in at once. There is danger, however, when the body is fatigued, or chilled from exposure.

5. When ready for your bath, do not dance

alongside of the water, afraid to go in, but dash right in, and immerse your whole body quickly two or three times, so that you may have the shock quickly distributed over the whole surface. To prevent headache dip your head several times as well.

6. When your bath is finished, dress quickly after having a good rub down with a rough towel; a regular curry combing, it should be.

Do not loll about after this, but take some exercise, a short sharp walk; or if it be before breakfast, with the precaution stated, get it immediately. If your bath has been properly taken, and you have been in condition for it, you will find your appetite has been increased.

7. When in the water, keep in motion, by swimming, if you are a swimmer. I am surprised there are so few young men able to swim, as it is one of the best of exercises, for all the different sets of muscles must act in concert. I hope, some day, we will have well-established bathing houses in the city, where a man can learn to swim and have elbow-room to do it in, instead of being content with a sponge-down.

In the art of swimming man does not compare favorably with most animals. If a dog falls into the water, he swims at once, perhaps, awkwardly at the start off, if he has not been often in the water, but he is in no danger of drowning. Put his master ignorant of swimming in the same position; what would become of him. He would soon drown. Every young man and young girl should learn to swim. Putting aside the question of health and the pleasures attached to it as an exercise, it should be the duty of every parent to see that their children are taught swimming. Lives have been saved by it, and history is only too full of sad accidents, even when close to shore, where the inability to swim has resulted in great loss of life.

Another item, Mr. Chairman, that may be spoken of in connection with camping out and the other out-door sports is the use of alcohol. This is a subject of burning interest to the community, and one doubly so to physicians who are acquainted with the inner life of society. They see every day of their lives fine young men with splendid prospects ahead of them going to ruin, and prosperous men of business becoming beggars, but more than this, they see also the slow insidious inroads of disease making havoc of strong constitutions by the immoderate use of alcohol. What a man has to say upon this subject should be said

with deliberation and judgment, to give no uncertain sound as to his meaning, and at the same time abstain from the rantings of some paid temperance lecturers. Now, I am speaking to young men to-night, and I can honestly say that no young man in health, and capable of indulging in out-door sports, requires alcohol any more than he requires castor-oil. I am quite certain you do not like the latter, nor will you the former unless you give yourselves the appetite for it. Alcohol is a stimulant only to be used when occasion requires it.

The medical profession are blamed for prescribing it wholesale in almost every case that comes under their notice, thereby aiding and abetting drunkenness. This, gentlemen, is hardly the case, as medical men are as careful in prescribing alcohol, when necessary, as they are of any article in the *Materia-Medica*, you will hear, however, of tipplers, of people who are fond of their glass, excusing themselves for their indulgence on the plea that they were advised to do so by their physician, who more than likely was quite innocent of any such instruction; in this way telling a falsehood to shield a sin. I repeat, young men in health do not require alcohol at all. It will not give you strength, it may stimulate you for a few minutes, and then you feel the worse for it afterwards. A little bit of personal experience will make this better understood. A few years ago, when the Canada Central Railway went no further than Renfrew, I started on my usual Autumn trip for the woods. I arrived at Renfrew late in the evening, and found the stage did not leave for Eganville, 26 miles distant, until 3 o'clock next afternoon. As I did not care to loiter about the village three-quarters of a day, next morning I unpacked my gun, put some cartridges in my pockets, and started to foot it, leaving instructions for my baggage to be sent by the stage. It was in October, and the roads were muddy. When I had made about 8 miles, I found I was not so fresh as when I started, and just at this place there was a tavern. I thought I would have a smile. I went in and did take a smile, and I felt good all over. I had still 8 miles to make to reach Douglas, where I intended to get my dinner. The first two miles I made in splendid style, and I congratulated myself upon my prudence in smiling, but after this I began to fag rapidly, and anyone to have seen me toiling up the steep hill entering Douglas, would have seen a most forlorn, tired-out individual without any trace of a smile about him. I am positive that that glass

of whiskey, call it a smile if you will, did me harm. It simply acted as a goad to flagging powers, as I was not in training for a long tramp.

Now, the habitual use of alcohol during training is injurious and should be forbidden; it should be equally so in your out-door sports. A cup of coffee you will find much more to the purpose, as it is both stimulating and nourishing. I do not wish you to consider me a temperance lecturer, far from it. I am speaking as I feel. I am convinced of the truth of what I have said. A young man in health indulging in out-door sports does not require alcohol. It detracts from the benefit to be derived from them. You may ask, however, what are we to do if, supposing we are in training for a snow-shoe race, we feel depressed, and are forced to exercise more will-power to continue the same exertion. My answer is, you are over-training, relax your work; taking alcohol will be the same as whipping a tired-horse. In the bracing climate of our country men in training do not require spirits. Most of you will remember the Red River Expedition, under Sir G. Wolsely, the heavy work accomplished and the hardships endured, and yet there were no alcoholic rations, tea being supplied instead, and there was no sickness beyond a few cases of diarrhœa.

Now, Mr. Chairman, my duty is done, and I would be sorry if any should consider I have spoken too forcibly on any one point, but at the present time people are very apt to run to extremes. To-day, they are red-hot Radicals with explosive ideas, pulling down time-honored structures, and replacing them with fantastic theories; to-morrow, they are ardent Conservatives, seeing nothing but a high tariff and a national policy.

It is prudence and moderation I wish to counsel in all out-door sport. We cannot do without them, we must have them, and it is only by the wise use we make of them that they will give us pleasure and health.

### TUBERCLE-BACILLUS.

A convenient method of demonstrating it in Sputum.

By PROF. DR. P. BAUMGARTEN.

(Translated by Dr. Wilkins, Professor of Physiology Bishop's College, for MEDICAL RECORD from *Centralblatt f. d. medicins. Wissens.*)

The modification suggested by Ehrlich of the staining method discovered by Koch for the demonstration of tubercle-bacilli, has been recognised on

all sides, amongst the first by Koch himself, as an important improvement in the method of examination of the bacilli met with in tubercle. Notwithstanding this, Ehrlich's method still does not appear sufficiently simple and rapid not to excite the desire to discover a still more convenient and rapid proceeding for the demonstration in practice of the fungus of tubercle.

In section preparations, the potash method proposed by me leaves nothing to be desired in the rapidity of its performance, and is scarcely inferior in certainty to the staining method. In preparations, however, in which the accidental occurrence of various other kinds of bacteria are to be feared, or cannot be avoided, as for example in phthisical sputa, the simple potash method is not sufficient,—even for the most practised—at least in many cases. On the other hand, I believe I have found a procedure which even in the last named cases rapidly and surely effects its purpose—a combination of the potash method with staining by means of an aniline dye which usually stains nuclei. Dry preparations of phthisical sputa are prepared according to the instructions given by Koch and Ehrlich, and moistened with very diluted solution of caustic potash.\* The tubercle-bacilli present in the preparation can then be seen in the clearest manner without further preparation by means of a magnifying power of 400 to 500 diameters. Through slight pressure on the cover-glass the bacilli can be still more freed from the surrounding tissue-detritus.

In order to exclude the possibility of mistaking similar shaped bacilli of a different species for tubercle-bacilli, the cover-glass should be lifted from the side and be placed to one side sufficiently long until the layer of fluid adhering to its under portions has been dried; this takes place in a few minutes. The cover-glass is now passed two or three times through a gas flame, and a drop of an ordinary watery solution of aniline violet, diluted but not too light in color (or of some other aniline dye which stains nuclei) is placed on the preparation. All bacteria resulting from decomposition now appear intensely blue; the tubercle-bacilli, on the contrary, are absolutely colorless, and can be seen as readily as in the simple potash preparation. The whole procedure requires not more than ten minutes, and may prove useful in practice.

\* 1-2 drops of a 33 per cent. solution of caustic potash in a watchglassful of distilled water.

## Progress of Medical Science.

### DIABETES INSIPIDUS AND DIABETES MELLITUS.

By HARVEY L. BYRD, M.D.,

President and Professor of Obstetrics, etc., in Baltimore Medical College, Baltimore, Md.

The following cases can hardly fail to interest your readers, as they present, by comparison and contrast, the more salient points in the differentiation of the two varieties of diabetes, and the treatment that was successful in each. The family history in both cases appears to have been good, and there were no evidences of acquired predisposition to the disease, either specific or otherwise; and both were young men of originally good constitution, and engaged in active outdoor occupations. They may be regarded as typical cases in more respects than that which the names would seem to imply, and I shall therefore endeavor to bring out their individualities and distinctive features in as prominent outline as the brief space I have allotted to myself in this communication will permit.

*Case I.* was a man a little over 20 years of age, and of originally good constitution. His average flow of urine exceeded nine pints daily, of a specific gravity of 1005, without albumen, entirely devoid of sugar, and of slight acid reaction. While in the enjoyment of excellent health he discovered a gradual augmentation in the daily flow of his urine, which went on for some weeks without producing any appreciable evidence of ill health, although he soon found that "his clothes were growing too large" and his appetite was not so strong as formerly. He observed after this that he was losing flesh quite rapidly, and his desire for good, nourishing food grew daily less and less. In five months and a half after his attention was called to the increase in the urinary discharge, he found himself greatly emaciated and so much debilitated as to be scarcely able to walk across the room without assistance. He stated positively that he had never suffered from venereal disease, and had at no time during his recollection received any serious injury to the head or spine, or, in fact, in any part of his body. A careful examination of the heart, lungs, stomach, and bowels revealed no lesion of either of them. He suffered from occasional constipation, but his digestion remained moderately fair, and the thermometer revealed little or no departure from the normal standard. He seemed not to be remarkably thirsty, and, though complaining of some feeling of uneasiness in the small of the back, declared he experienced no actual pain in any part of the body. Opportunity was afforded for observing the difference between the amount of fluids he received into his

stomach and that which was passed from the bladder, and they were in striking contrast. Thus, for example, he took into the stomach of fluids of all kinds six and a half to seven measured pints in twenty-four hours, and passed from nine to ten measured pints in the same length of time. These measurements were made and continued for a period of six days, and the resulting discrepancies were uniformly the same. Various articles of diet were used, in order to test their effects, if any, upon the urinary secretions, but without obvious results. His bowels were regulated with the vegetable cathartic-pill compound and elix. bromide of potassium in four-drachm doses, ordered at bedtime to procure sleep and remove restlessness, of which he sometimes complained; and he began taking drachm doses of fluid extract of ergot *ter die*. The quantity of ergot was increased to a drachm four times, and finally six times, in twenty-four hours, until the beginning of the fourth week, when it was reduced to the original amount per day, in consequence of the urine becoming reduced to three and a half pints in twenty-four hours. The bromide was diminished after the first week, and omitted entirely by the end of the second week, and a cathartic pill given *pro re nata*. The ergot was still further reduced in quantity until the end of the fourth week, when it was suspended entirely. At this time the appetite was good, and the general appearance indicated a return to perfect health. The urine was normal in quantity and quality.

*Case II.* (diabetes mellitus).—Male, between 35 and 40 years of age, laborer, and until a few years ago enjoyed excellent health. About a year ago his appetite was found to have increased very considerably, and with it his thirst was greatly augmented. Notwithstanding, he discovered he was losing flesh. The urine was light and clear and greatly increased in quantity, so much so as to necessitate his passing it five to six times a night; and it was shown by measurement that he voided from twenty-nine to thirty pints during twenty-four hours. He complained of muscular pains and some stiffness in the joints, but the suffering was inconsiderable from these causes. The first examination showed a specific gravity of 1031 and a considerable quantity of sugar. His bowels were opened with mass. hydrarg. and ext. colocyth. comp., each six grains, at night, and castor oil the following morning; and after its action, salicin and bicarb. soda, aa five grains every four hours. Ten days after, the quantity of urine passed in twenty-four hours was thirty-two pints, and contained thirty-one and four-tenths ounces of sugar, and he weighed one hundred and eighteen pounds. The use of salicin and soda was suspended, and arsenic, lactic acid, and opium in large doses were substituted separately and successively, and continued for twenty days, with varying advantage,—*i.e.*, the quantity of urine and amount of sugar increasing or lessening from time

to time, until the former reached forty pints and the latter thirty-two and two-tenths ounces in the twenty-four hours. From the very favorable reports of the effects of codeia in diabetes mellitus the foregoing articles were abandoned and the latter ordered in three-quarter-grain doses three times per day. In a week it was increased to one grain, and in ten days to one and one-half, and in two weeks to two grains t. d. At the end of third week the dose of codeia was reduced to one grain morning, noon, and night, as the amount of urine was nearly normal, the sugar had disappeared almost entirely, and the patient's thirst and dryness of skin had ceased to trouble him. His digestion had improved and his weight increased several pounds in the next fortnight, so that the dose of codeia was still further reduced to one-quarter grain t. d. During the treatment of the case a dose of mass. hydrarg. et ext. col. com., as at first, was given twice a week, and a tepid salt water bath, with the moderate use of the flesh-brush, resorted to once or twice per week until he was entirely well.

In the above typical cases two therapeutic agents stand forth as prominent factors,—viz., ergot in the insipid and codeia in the saccharine variety of diabetes. The effects of these agents, respectively, in the two forms of the disease, after the use of other remedies of recognized value had been productive of but little, if any, advantage, increase their claims to the consideration of the profession. Much credit is due to Prof. Da Costa for bringing ergot so clearly before the faculty. *Phil. Med. Times.*

### THE GERM OF TUBERCULOSIS.

The organism of tubercle has hitherto eluded research. Its discovery is at last announced by the distinguished worker to whose investigations much of the progress of bacterial pathology has been due, Dr. Koch, who gave a description and demonstration of the organisms at a recent meeting of the Physiological Society of Berlin. It is only by means of a special method of preparation and examination that the objects can be detected. The method consists essentially in a process of coloring, which has been found necessary for the detection of these organisms, and in their examination under very strong illumination. But the details of the method have to be varied according to the tissue examined, whether a secretion, blood tissue fluid, or a section of an organ or tissue. If, for instance, it is desired to demonstrate the presence of the tubercle-bacilli in the fluid of the tissues, a thin layer of this is spread over a cover-glass. It is then dried and warmed for a few moments over a flame, so as to render it insoluble; it is then placed in a mixture of one cubic centimeter of a concentrated solution of methylene-blue in alcohol, two-tenths of a cubic centimeter of a

ten-per-cent solution of potash, and two hundred cubic centimeters of distilled water for twenty-four hours. The preparation is by this colored blue, and on it is then placed a few drops of a solution of vesuvin. This has the effect of discharging the methylene blue from all the tissue elements, but not from the bacilli. The former are of a brown color, and the blue bacilli are conspicuously defined. The preparation is then treated with absolute alcohol, oil of cloves, and Canada balsam, in the ordinary manner. This peculiarity of being rendered visible by the combined action of methylene blue and vesuvin is possessed only by the tubercle-bacilli and by those of leprosy. All other bacteria and micrococci known to Koch lose, under the action of vesuvin, the blue color which they acquire from methylene-blue.

The bacilli of tubercle, when rendered visible by this method of double coloration, are seen as very small rods, in length about one-third the diameter of a red blood corpuscle, and in breadth about one sixth of their length. In some of them distinct spores may be seen, as minute, unstained, refracting, vacuole-like structures, distinguishable, however, from the vacuoles in that at their position there is a slight fusiform enlargement of the bacillus. They are most abundant in recent tubercular neoplasms and least numerous in the caseating centre of old miliary tubercles. They are also visible within the giant cells, usually isolated, but sometimes forming well-marked sheaf-like bundles. Koch found the same organisms in the walls of tuberculous cavities, in the sputum of phthisical patients, in degenerated scrofulous glands, in fungous joints, and in the bones of tuberculous cattle. They were never absent in the tubercular new formations produced by inoculations, even in animals of the most different species.

In order to ascertain the all-important question whether these organisms are actually the *materies morbi* of tuberculosis, Koch has carried on an extensive series of culture-experiments, which have yielded the most striking results. As a culture-liquid, he employed sterilized blood-serum from the ox. The sterilization was effected in the method recommended by Tyndall, by placing the serum in a test-tube closed with a plug of wadding, and exposing it for an hour on each of several successive days to a temperature of 55° C. After this had been repeated for about six days, the temperature was raised to 65° C., and the previously fluid serum became transformed into a yellowish, translucent, but slightly opalescent, mass of the consistence of coagulated gelatine. Its translucency permitted the growth of organisms, either on its surface or in its depth, to be readily recognized by the resulting opacity. In order to increase the area of the free surface of this culture-soil, it is recommended to incline the test-tube at the moment of coagulation. A small fragment of excised tissue was introduced into a tube under special precautions to avoid contamination with

ordinary bacteria of putrefaction. Fresh military tubercle answers best, taken from an animal affected with inoculation-tubercle, and killed shortly before. If the glass is kept at a temperature of 37° or 38° C., at the end of about ten days the first effect of culture is observable as fine white points and streaks on the surface of the serum. Fresh glasses may be inoculated from this first culture; and so a series of generations may be obtained. Some of these series of cultures were continued for two hundred days. Under the microscope these grayish-white masses on the surface of the serum are found to consist of precisely the same bacilli as can be demonstrated by means of the method of double coloration in the primary tuberculous tissue. If a small portion is inserted into the anterior chamber of the eye of an animal, is injected into its blood, or inoculated beneath its skin, there results a widespread tuberculosis of almost all the organs and tissues that has a more rapid course than when the inoculation is made with ordinary tuberculous material. The first symptoms are to be observed in guinea-pigs ten days after the inoculation. Even animals which enjoy an almost complete immunity from tuberculosis, such as dogs and rats, are affected rapidly and with certainty. In some of the animals which died after these inoculations the amount of tubercle developed in the tissues was enormous, being hardly ever equalled in the human subject.

These experiments seem to demonstrate that the organism which is revealed by the method of double coloration is really the pathogenic element of tuberculosis. The researches appear to have been conducted with admirable care. The experiment will no doubt be soon repeated. Indeed, in the brief interval which has elapsed since the demonstration by Koch, on March 24th, his observations have received independent confirmation by Baumgarten, who has published in the *Centralblatt für Med. Wiss.* an account of his observations. In every new formation of artificially-produced tuberculosis in the guinea-pig he found innumerable quantities of the rod-shaped bacteria infiltrating the area in diminishing intensity from the center to the circumference. As far as the tubercular growth can be traced the bacterial infiltration extends. His description of the organisms closely agrees with that of Koch, but he observed that the extremities of the rods frequently presented a knob-shaped or wedge-shaped enlargement. They were very rarely united in pairs, and never massed in the so-called zooglea form. He corroborates their characteristic of resistance to the ordinary methods of tinting, and only succeeded in bringing them into distinct view by dilute alkalis. In a postscript Baumgarten adds that he has succeeded in finding the same organisms in human tubercle. The pathological importance of the discovery of the proximate cause of this frightful scourge of the human race cannot be over-estimated; nor is it possible to fore-

tell the practical results to which it may lead.—*The Lancet.*

### DIABETES ITS TREATMENT.

E. A. Cook, Ph.D., L.R.C.P. and S.Ed., L.F.P.S.G., writes to the *Practitioner* that:

Whether the primary lesion in diabetes has been caused by sudden imbibition of cold liquid, or in some other way, it is certain that the quantities of liquid habitually consumed by diabetics must be very hurtful to digestion. The peptic glands would pour their secretion into a mass of diluting fluid, but little food could be rendered fit for absorption, and this fluid is absorbed, carried by the veins partly to the general circulation, partly to the liver, and thus the blood must be constantly diluted. In treating such cases we must endeavor to decrease the water consumed. This is very difficult to effect while so much urine is passing away, for if the patient denies himself liquid by force of will, a kind of ravenous state sets in, and life is unbearable. While the sugar is constantly produced it must be as constantly eliminated, and to effect this by the kidneys a certain amount of water is necessary. The state of the case in such patients seems to necessitate a choice of evils. If you seek by drugs or by deprivation of fluid to diminish the amount of urine, sugar accumulates in the blood. If water be allowed in the quantity required, the patient dies from want of nutrition, because the digestive organs are unable to act, and the blood is depleted of other life-sustaining substances.

In dealing with these symptoms we must not neglect the morbid physiological states produced by them; we must not hope for permanent improvement by administering drugs which increase morbid conditions. If in a disease like phthisis it is so well recognized that opiates are prejudicial in consequence of their action in disordering the stomach, how much more strongly should this fact be borne in mind in the treatment of diabetic symptoms? Doubtless a temporary apparent improvement is sometimes manifest from their use, but it is at the cost of a real decline in vital power; or, if a real improvement is effected, it must be by some occult special action on the special lesion in these cases, and no generalization can be made. The diabetic symptoms in the order of their importance, when well established, are: 1. Excessive thirst; 2. Constipation; 3. Lack of digestive powers; 4. Twitching of muscles, especially those of the lower limbs; 5. Weakness; 6. The excretion of excessive urine and sugar; and it is in this order that treatment is most urgently demanded.

Any one who has watched a well-marked case will not need to be convinced that it is of the utmost importance for the comfort of the patient that the hard dry tongue should be kept moist, and if the orifices of the salivary ducts are examined

they will be found dry also. The drugs which are known to increase salivary secretion are mercury, nitro-hydrochloric acid, and pilocarpin. The first is in most cases inadmissible; the second is of some value, but pilocarpin is the drug suitable above all others. When administered in one-fifth to one-third grain doses its general effect is most powerful, and such an administration in diabetic cases would be hurtful; but if a minute dose be applied locally and repeatedly, the mouth can be kept moist. If the nitrate be dissolved in dilute spirit, so that five drops shall equal one-twentieth grain, and if this quantity be placed every four hours between the lip and the gum, in a short time a great improvement will be apparent, and as this proceeds the dose can be reduced to one-half with advantage. The general effect of this treatment is that the patient demands less liquid.

I have been present at four post-mortem inspections of diabetic patients. The deaths in all four had been sudden, and in all four the intestines presented evidence of most marked constipation, the feces in the lower bowel being exceedingly hard. I do not remember a single case of diabetes in which marked constipation was not a symptom; when it was relieved the liquid taken and excreted was diminished, but the relief was often not possible by ordinary doses or measures; and I have learned that when this state is neglected there is some marked danger of sudden death. An enema passed high up the rectum and of large amount is the most satisfactory method of treatment until a general amendment commences, when this symptom diminishes.

When the diet of a diabetic patient is made to consist almost wholly of non-farinaceous material it is especially necessary that the digestive arrangements be in as good order as possible, and so much the more is this the case if the greater portion of the diet be milk. It is no uncommon thing for a diabetic to drink four or five pints of liquid at once. This must distend the stomach and weaken digestion. The peptic glands may be paralyzed. The best remedy for this state is to give with all meals pepsin and hydrochloric acid, and to allow no liquids for some little period previous to the meal. In the majority of cases a marked improvement will soon follow this line of treatment—the bodily weight will increase, the constipation will often entirely disappear, and the desire for fluids and the consequent polyuria be diminished.

The urine excreted contains, besides sugar, mineral salts, and when we consider the amount draining away it must at once appear most appropriate to administer some material suitable to replace this drainage. Phosphates are the most essential, and a solution containing no sugar will be required. The following I have prepared in large quantity and administered with much benefit:

Bone-ash of femur.....	1040 gr.
Phosphate of magnesia.....	800 gr.
Phosphate of potash.....	1900 gr.
Phosphate of soda.....	3520 gr.

Syrupy phosphoric acid ..... q.s.  
Water, to..... 64 oz.

Powder the bone-ash and add four ounces of syrupy phosphoric acid diluted with an equal bulk of water; add the phosphate of magnesia, and leave for twelve hours; dilute with water to forty ounces and filter; dissolve the phosphates of potash and soda in water and add to the clear filtrate; add sufficient phosphoric acid to redissolve any precipitate formed, and make up the bulk to sixty-four ounces. Dose, one dram thrice daily in water.

When the above-described methods of treatment are followed out, the patient suffering from diabetic symptoms has a rational prospect of improvement. The twitching of the muscles, the weakness, the polyuria, may be neglected; they will disappear, as will also the melancholia, the impotence, and the wasting. The sugar in the urine I have never known to disappear entirely, but always to diminish in quantity. It may be there are cases of disease presenting diabetic symptoms in which the whole of the above method of treatment would be of no avail, but I have never seen one in which improvement did not take place if it were used before the last stage of exhaustion had set in; and when recovery has to a certain extent taken place it is not necessary to rigidly enforce it for fear of a relapse.

#### THERAPEUTICAL ACTION OF ERGOT.

John Dewar, L.R.C.P., etc., in the *London Practitioner* for May, makes the following observations on the therapeutical action of ergot:

From its action on the circulation and the nervous system it is evident that ergot possesses a wide therapeutical range. In mentioning a few diseases in which I have found it useful I would place at the head of the list *pertussis*. I am aware that in this disease a vast number of remedies are useful; but after a pretty extensive trial, both in hospital and private practice, I am inclined to regard ergot as best and safest... Ergot seldom fails to cure whooping-cough in from one to three weeks. The cases that are longer in getting better are those complicated with bronchitis or with troublesome bronchial catarrh. I give from four to fifteen minims of the liquid extract every three or four hours to children of three months and upward. The benefit of the secale is at once apparent, the fits of coughing occur less frequently, and are not so severe when they do occur. I usually give it alone with a little sugar, but in complicated cases it may be combined with other remedies, and especially with the compound syrup of the phosphates to complete the cure when there is debility...

Of its power to cut short the disease there can be no doubt, whatever be the theory of its action. This I have in scores of cases proved; nor is it necessary to give cases in detail, as all the cases would simply show a daily declension of the dis-



ease until, at the end of a fortnight or three weeks, the cough quite ceased. But in some cases the cough returns when the medicine is left off, so it may have to be continued for two or even three months; this, however, is the exception.

The power of ergot upon hooping-cough throws some light on its physiological action. Indeed clinical or therapeutical observation often aids physiological research, though without experimental (vivisectional) investigation the therapist would be in hopeless darkness. Its action in hooping-cough appears to me to favor the theory that the sensory peripheral endings only are affected, as central anemia of the cord from constricted vessels could scarcely account for the *speedy* antispasmodic action of the drug, though later on it may have something to do with the bringing about a cure.

*On the uterus.* On the parturient uterus every one has tried the effects of ergot; yet obstetricians are frequently disappointed in its action, so much so that many say it is useless; and I suppose every one has felt it to be provokingly uncertain, even in a most suitable case—a well-advanced labor, free from mechanical obstruction, a dilated or dilatable os, and a multipara. In vain are large and oft-repeated doses given—the sluggish uterus will not act. Whether it be the only one or not, I know one cause to be inertness of the drug. After a pretty extensive trial of powder, tea, tincture, and liquid extract, I have found the best results from the liquor secale ammoniata, when well prepared. Let one typical case suffice: Mrs. M. in labor with her seventh child; usually *very* quick. Visited patient at eight o'clock in the morning. She had been in labor all night, during which time the membranes ruptured. Pains very feeble; os dilatable and as large as the mouth of a teacup. Went home, returned about twelve o'clock, and found her much in the same condition. I then gave one dram liq. sec. ammon. (Ferris). In thirty-five minutes sharp pains came on, and in another fifteen minutes the child was born. Placenta came away easily. In this case the labor had lasted eighteen hours. In cases where I have given a dram and a half of the secale for a dose, violent uterine contractions have taken place, expelling the child and retaining the placenta for some time by hour-glass contractions. This retention of the placenta I have frequently found after giving large doses, but not with dram or half-dram doses.

Has ergot any action on the unimpregnated uterus, or on the impregnated before parturition has commenced? As far as my experience goes, ergot has no appreciable effect on the impregnated uterus when given in therapeutic doses. On the unimpregnated uterus its action is not very marked, unless it be given for a lengthened period. In subinvolution and in chronic congestion and enlargement the cavity of the uterus—the sound being judge—does not become diminished by the action of secale alone, but, with rest and other remedies, it helps. I have not much faith in its action on uterine fibroids. If they are submucoid, ergot will

assist their enucleation after an incision has been made. But it is too much to expect from a remedy that a tumor of any size will have its blood-supply so cut off as to destroy the growth, or to cause enucleation by contractions. In such cases however, it will assist natural efforts of expulsion when such has commenced.

Theoretically, ergot should have some effect upon all hemorrhages, congestions, and atonic conditions of the system. In hemoptysis it has been highly spoken of, but my experience of it in that disease is small, as I have found such good results from the tincture of hamamelis that I seldom use any other remedy. Again, it is constantly used alone or combined with sulphuric acid in menorrhagia, metrorrhagia, and with more or less success. So also in leucorrhœa and galactorrhœa, although I have not found it of much use in preventing or cutting short mammary abscess.

In atonic and enfeebled conditions so often met with in women, where anemia is associated with a weak heart, inertia, etc., ergot, combined with tincture of iron, often acts better than strychnine and iron or digitalis and iron. Allbutt has used it with great benefit in men who are worn out from worry, and who need bracing up. So with children, I have found it in some cases a useful adjunct to the compound syrup of the phosphates where the latter is indicated.

In diarrhea several writers have spoken highly of ergot, but in my hands it has invariably failed; indeed it has always increased the diarrhea, and this, from its action upon the muscular fibres of the intestines, is what one would expect. Any theoretical advantage to be gained by contraction of congested vessels in the mucous membrane is more than counterbalanced by the increased peristalsis. In a typical case of chronic diarrhea which I had under my care a short time ago, and which continued for months despite every kind of treatment, I gave some ergot; but the patient could not be persuaded to finish one bottle, as he said it made him "worse than ever." The diarrhea was due to muco-enteritis, and the case did well on large doses of bismuth. In children who have been taking ergot for some time diarrhea frequently sets in. This is the only bad effect I find from its prolonged use—two or three months—in children; and when it is given in ordinary therapeutical doses, five to ten drops every four or six hours, it may be continued for a very long time without doing harm.

The action of ergot upon the spinal cord is well known, but in congestion of the brain in children I have been most unfortunate in its use, even in large doses. In some of my cases, however, there was a suspicion of tubercle.

The following case, which was under my care a few weeks ago, may be looked upon as illustrating the speedy action of ergot upon what appeared to be localized congestion of the chord: A little boy aged four and rather delicate, was suddenly seized with what his mother thought a slight convulsion,



in which he threw his head back, rolled his eyes, etc. Upon recovering he lay with the back of his head almost touching his spine, and he was in that condition when I saw him. On attempting to bring his head forward he strongly resisted and screamed. In this state the child lay for a fortnight, appearing to get worse, for, besides his head being retracted, when he was held up his legs were found to be powerfully flexed on his thighs, and they could with difficulty be straightened. Iodide of potassium and various other internal and external remedies were used for a fortnight without the slightest effect. I then gave him ten minims of liq. ergotæ every four hours. In two days he showed symptoms of improvement, which continued until, at the end of a month from the commencement of the attack, he had recovered. During the last week the compound syrup of the phosphates was added to the secale. There are several interesting points connected with this case, but I am only concerned here with the action of the ergot.

The only other affection I shall mention where ergot seems to be useful and deserving of further trial is nasal catarrh. This troublesome complaint, which has hitherto resisted all remedies, if taken in its early stage may be cut short by a full dose of ergot, repeated if necessary.

### BORACIC ACID POWDER FOR GRANULAR LIDS.

By JAMES L. MINOR, M.D.

Assistant Surgeon to the New York Eye and Ear Dispensary, etc., New York City, N.Y.

The intractable character of many cases of granular lids furnishes ample means of testing the action of any medicine supposed to be useful in their treatment; and the benefit frequently accruing from a *change* in the application of a remedy which has been used for some time suggests the propriety of placing additional agents at our command in the treatment of a disease, at once so common and so obstinate. And having been impressed with the beneficial effect of powdered boracic acid upon succulent granulations in the ear, it occurred to me that it ought to be used with advantage in certain forms of granular lids; and, too, recalling the old Belgium treatment of pulverized acetate of lead in this affection, I decided to use boracic acid for the same purpose.

The cases selected for this treatment have been chiefly those in which the papillary granulations stood out as prominent fleshy masses, with deep inter-papillary crevices, and accompanied by scanty serous secretion.

I have used the pulverized acid as follows: The lids being thoroughly everted, the powder is spread freely over the whole conjunctival surface with a camel's hair brush. The acid is generously ap-

plied, and mixing with the discharge from the lids, it readily gains access to the cracks and crevices between the granulations, and thus comes into direct contact with the entire surface upon which it is desired to act. The immediate effect is to increase lachrymation and to cause a burning, gritty sensation, with some pain. These symptoms usually pass off within ten minutes, and are followed by an amelioration of all the symptoms which existed before the application of the acid. The granulations may look less gorged and prominent, but I have been able to discover little change in the naked eye appearances of the conjunctiva after a single application of the powder. The powder was used three times a week, because the patients were seen at the hospital clinic which I attended tri-weekly, but there are no indications that it should not be used daily. I commenced this mode of treatment nearly six months ago, and attempted to keep a record of the cases so treated, with an idea of tabulating them and formulating the results, but to no purpose, for the slight degree of change noted, from time to time, resolved itself into gradual but steady improvement, without any remarkable leaps to a successful cure. In this respect boracic acid only resembles other agents used for the same purpose. It is, however, less painful than the ordinary caustic or astringent applications, and in my hands has given a more satisfactory result; and patients who have received this treatment frequently ask to have "the white powder" used again, as being less severe in its action, but more potent in affording relief than other applications which have been made. I have used it with success in various forms of granular lids and trachoma; and in one case of indolent corneal ulcer associated with granular lids, marked and immediate improvement followed the boracic acid treatment.

The abundant serous discharge which follows the direct application of boracic acid is only partly due to the conjunctival irritation caused by its presence; on granulation tissue in the ear and on indolent ulcers elsewhere, it occasions a free serous flux when it is used. Whether an osmotic current is established or not, it is certainly a fact that succulent tissue is relieved of its superabundant serum, and thereby contracts: Hence boracic acid may be looked upon, to a certain extent, as a *depurative* to such tissues; but whether its beneficial effect is to be ascribed entirely to the relief of circumvascular pressure, thereby favoring a return to a healthy circulation and normal nutrition, or to additional curative action, are questions to be decided by further investigation. It is certainly to be anticipated that a cure effected by such a remedy as boracic acid will leave the conjunctival membrane in a healthier condition than is seen in cures resulting from the use of caustic applications.—*Virginia Medical Monthly.*

## ON LINIMENTUM CROTONIS IN THE TREATMENT OF ACUTE BRONCHITIS.

Dr. R. Park, of Glasgow, Scot., contributes a paper to *Practitioner* in which he calls attention to a line of treatment which he says has been invariably successful in his hands during the last five years:

As soon as the patient comes under treatment, the chest, in whole or in part, is to be rubbed with two or three drams of lin. crotonis. If the patient is seen at the very earliest stage, when there is only a slight roughness and pain behind the sternum, then it will be enough to have it rubbed into the episternal hollow, along the clavicles, and down the front of the sternum as far as the ensiform cartilage. Otherwise the whole front of the chest, the sides thereof under the armpits, and the back between the shoulders should be rubbed. The best manner of application is by means of a tag of cotton wool saturated with the liniment and rubbed till it is dried up. Care should be taken, and the patient warned, not to let the liniment run down the loins and abdomen, which it is apt to do. Also the applying hand should be carefully washed immediately afterward. The application at once relieves the patient, and this relief is maintained and increased by having the surface rubbed covered over with a thin layer of absorbent cotton wool, properly retained to prevent shifting. For this purpose an old chamois leather vest answers well.

From repeated personal experience I know that the liniment applied in this way does not produce pain. Sometimes, after twenty-four hours or so, there is a feeling of tenderness or soreness; but if the cotton wool be not disturbed, and violent rubbing be not resorted to by the patient, this soreness is evanescent, and succeeded by an itching, sometimes very considerable, which remains for three or four days. It may be relieved by smearing the eruption over with fresh butter, lard, or vaseline under the cotton wool, care being taken, however, not to disturb the cotton where it has become adherent with discharge.

It is this persistence and continuity of effect which makes the application of such signal value, more especially for children and infants. So long as the irritation lasts, so long does the derivative action continue. But it has another great advantage, namely, that it enables the patient to go about his business. There is an impression abroad that it is dangerous for a patient to expose himself out of doors with an eruption such as that of lin. crotonis upon him. Such an impression is quite erroneous. There is another prejudice against applying it to infants. I can only say that I have had it applied to scores of infants under twelve months, and have never once regretted the practice. On the other hand, I can remember many a time regretting having ordered a poultice under similar circumstances. For the relief of the cough I have prescribed this mixture, which has answered well:

℞ Acidi. hydrobromici, ..... M lxxx ;  
 Vini ipecac., ..... M c ;  
 Tinct. belladonnæ, ..... Mxl ;  
 Acidi hydrocyan. dil., ..... Miv ;  
 Syr. Scillæ, ..... ʒ jss ;  
 Glycerini, q.s. ad, . . . . . ʒ ii.  
 Ft. Mist. Cujus cap. coch. min. j. 2 dis. horis.

## THE LARGEST MAN IN AMERICA.

The largest man on this continent was the late Lewis Cornelius, of Pike County, Pa. He was considerably larger than Daniel Lambert. Mr. Cornelius' dimensions are entered upon the record books in the Prothonotary's office at Milford, Pike county, as follows:—

"Lewis Cornelius—Born 1794.

"Height, 6 feet.

"Circumference below waist, 8 feet 2 inches.

"Circumference above waist, 6 feet 2½ inches.

"Circumference of arm above elbow, 2 feet 2 inches.

"Circumference of arm below elbow, 1 foot 9 inches.

"Circumference of wrist, 1 foot 3 inches.

"Circumference of thigh, 4 feet 2 inches.

"Circumference of calf of leg, 2 feet 7 inches.

"Circumference of ankle, 1 foot 7 inches.

"Weight, without any clothing whatever, 645½ pounds."

This is the only authentic record of Mr. Cornelius' size extant. As he had been sick some time he lost over 50 pounds of his weight. He was not weighed until after his death, and when in full health would have tipped the scales at 700 pounds. His wife was a very slight woman, and weighed just 100 pounds.—*Philadelphia Medical Reporter*.

## THE TREATMENT OF RINGWORM.

A writer in the *British Med. Journal* says: The difficulty experienced in the treatment of ringworm is known to every one who has seen much of this disease. I therefore think your readers will be glad to hear of a remedy which I have recently used with complete success. Struck with the similarity that exists between the disease known in the East Indies as dobitzch and ringworm, and knowing how rapidly the former yields to the application of goa powder, I was induced to try the active principle of this substance, chrysophanic acid, in the proportion of one dram to one ounce of vaseline. The result has been the rapid destruction of the fungus, and consequently a complete cure. Chrysophanic acid has been recommended in the treatment of psoriasis, but I am not aware of it having been used hitherto for ringworm.

## HERNIA RADICALLY CURED BY THE USE OF HYPODERMIC INJECTIONS.

Dr. J. H. Warren (*Med. and Surg. Reporter*) reports good results in the treatment of hernia of all kinds by the hypodermic injection of various fluids into the tissues in front of the hernial rings. For infants he uses an aqueous solution of oak bark; for children from five, to fifteen, the extract of oak bark distilled to the consistence of glycerine, with ten drops of sulphuric ether to the drachm; for old or long standing hernia, congenital or otherwise, a solution composed of four drachms of the last mentioned article, one of sulphuric ether, one of absolute alcohol, with one or two grains of morphia. The syringe is made to hold two drachms, and the needle is spirally twisted and pierced with holes on the sides; the fluid is thus injected on the parts at right angles. This proceeding excites slight fever, and a certain amount of local inflammation. The parts become matted together in such a way as, in the great majority of cases, to effectually close the hernial openings. After the operation the patient should keep in bed for about a fortnight. The parts should also be supported for some time by a compress and bandage, or light spring truss. Over-exertion or great straining must be avoided for several months, till the rings are consolidated. Of twelve operations reported, all but three were perfectly successful.

## SUPPOSITORIES OF ERGOTIN.

At a recent meeting of the Société de Thérapeutique (*Bull. Gén. de Thérap.*, vol. ii., 1880, p. 43) M. Dujardin Beaumetz stated that, following the example of a Belgian physician, he had attempted the employment of ergotin in suppositories to combat the metrorrhagia of uterine fibromata. These suppositories contained fifty centigrammes (eight grains) of ergotin,—that is to say, about five times the amount used in hypodermic injection. He had obtained excellent results in two cases, which had been cured in the first after two applications, in the second after three applications.

In the discussion following, M. Ferrand said he also had employed these suppositories in studying the influence of ergotin on hemorrhoids. One patient, among others, had been relieved of a persistent hemorrhoidal flux after the employment of eight or ten suppositories containing twenty-five centigrammes of extract of ergot. This patient had had no return of the flux after more than a month.

M. Vidal said he also had used these suppositories in the treatment of rectal prolapse. He was accustomed to use suppositories containing fifty centigrammes to a gramme of ergotin. The effect obtained had not been as satisfactory as in using hypodermic injections; besides which the patients

complained of a very painful burning sensation in the neighborhood of the anus.

M. Ferrand said the dose was not without importance, because of the great difference of sensibility which exists between the mucous membrane of the stomach and that of the rectum: thus, saline enemata which caused energetic and painful contractions of the intestines produced no such effect when introduced into the stomach. In the patient suffering with hemorrhoids, whose case he had reported last year, he had employed hypodermic injections of ergotin after having been obliged to give up suppositories of tannin, which had been badly borne.

M. Montard Martin believed that there existed an undoubted difference between the stomach and the rectum with regard to their relative sensibility; besides, the intestinal mucous membrane absorbs more easily, rendering it necessary to use smaller doses than by the mouth. The example chosen by M. Ferrand was ill-chosen, because the saline solution employed as an emetic also excites the gastric mucous membrane greatly; but chloral, so well supported by the stomach, often causes severe pain when given in enemata.

M. Dujardin Beaumetz thought that suppositories of ergotin were to be recommended as useful in uterine fibroid. They did not present the same danger as the parenchymatous injection of ergotin in solution into the uterus, which is sometimes followed by fatal peritonitis. The formula for the suppositories might be fixed, for example, as ergotin fifty centigrammes, ol. theobromæ five grammes.

M. Ferrand thought that if these suppositories gave pain they might be reduced in strength and repeated more frequently.

M. Blondeau had employed similar suppositories in a case of retention of urine, and had obtained good results.

## TREATMENT OF INFANTILE DIARRHŒA BY POWDERED CHARCOAL.

Dr. Guérin, in referring to a recent communication to the *Académie de Médecine*, made by Bouchardat, remarks that for a long time he has been in the habit of combating infantile diarrhœa by mixing the milk in the suckling-bottle with charcoal powder. He usually adds half a teaspoonful of the powder to one bottle of the milk. The infants take the milk readily, and in a few days the greenish stools of the little patients change to a dark yellow, while their consistence becomes increased. In addition to the admixture of powdered charcoal, the milk is diluted by one-half or one-third of its bulk of sugared water. He has frequently seen intractable summer complaints yield in a few days to this treatment.

## COD-LIVER OIL IN EPILEPSY.

Dr. Fairbairn, of Brooklyn, N.Y., writes: The digestive disorder and annoying and disfiguring eruption which result from taking the bromides in large doses for a length of time, are serious disadvantages connected with the administration of these salts. A remedy which will prevent the bad effects of a medicine, and at the same time will rather aid than detract from its good effects, is certainly a valuable one. I think in this case we have such a remedy in cod-liver oil.

A young lady suffering from epilepsy has been under my care for the past five months, who has taken bromide of potassium in large doses for nearly a year, and by this remedy cod-liver oil has warded off the above troublesome results. The mode of taking it was this: Brom. potas., ʒ ss., was taken thrice daily after eating; this was followed one hour after each dose by ol. morrhueæ, ʒ ss. When first attacked by the malady she had eight convulsions in the twenty-four hours. She began the bromide in ʒ ss. doses, but was compelled to stop it on account of the gastric derangement. A friend recommended the cod-liver oil. She resumed the bromide, adding the oil, and has taken it without further trouble since. The eruption, before profuse, disappeared under this management. The disease has been well controlled, only four convulsions having occurred in the past seven months. I doubt not that the cod-liver oil has had its share in the direct benefit done to the nervous system, besides affording a protection from the irritating salt to the coats of the stomach. In summing up the good effects of the oil I find: *First*.—Absence of the digestive disorders. *Second*.—Absence of the acne eruption. *Third*.—That the anæmia, usually found in persons taking this medicine continually, is far from being marked. *Fourth*.—The body is better nourished, and appetite unimpaired. I have made trial of this treatment in other cases, with similar good results. As the articles that have appeared in your journal, in the past month, on the bromides, have made no mention of this device, I have been led to write the above.

## ASPIRATION OF THE GALL-BLADDER.

Dr. P. H. Kretschman reports a successful case in the Proceedings of the Medical Society of the County of Kings, September, 1881, of which he says:

"Five times has the gall-bladder been aspirated; thirty-four ounces and a half of bile have been removed within one month. At every operation the patient felt much relieved, and since the first withdrawal of bile the constitutional symptoms diminished in severity. At no time did the operation itself place our patient in danger, and generally speaking there was no pain attached to it."

The following generalizations he appends to his paper:

1. The operation can be performed with *safety*, without taking particular precautions in uniting the walls of the gall-bladder with those of the abdomen.

2. The operation can therefore be done as soon as the diagnosis of a dilated gall-bladder has been made, if from its size there seems to be danger of rupture, or if the patient suffers much pain. Aside from these conditions, when aspiration should be resorted to without hesitation, the question presents itself whether it would not be good practice to evacuate the contents of a distended gall-bladder under all circumstances, simply to remove the superfluous bile, which, being cut off from its natural destination, is bound to be reabsorbed by the lymphatics, carried back into the circulation and produce, to a greater or lesser degree, a condition which is generally known as "cholemia."

3. A very fine trocar, such as would be of not much value in case of simple puncture, can be employed; and by means of suction even a tenacious fluid can be removed from the gall-bladder.

4. The insertion of a small trocar or an aspirating needle is almost a painless procedure.

5. In cases of doubt as to the presence of gall-stones, a flexible probe can be passed through the canula and used as a sound.

6. Aspiration being a safe and painless operation, it can be employed for the purpose of aiding diagnosis.

The rules for performing the operation are thus formulated:

1. Aspiration should not be delayed, but resorted to as soon as the diagnosis of distended gall-bladder has been made.

2. A good-sized aspirating needle or a fine trocar should be used.

3. The instrument should be introduced into the gall-bladder at a point as high up and as near to the border of the liver as possible.

4. On withdrawing the instrument the punctured wound in the abdominal wall should at once be closed by some kind of plaster or by the introduction of a stitch.

5. The operation should be repeated as often as the gall-bladder becomes distended again.

6. The common rules of surgery as to cleanliness, etc., should be strictly adhered to.

## THE TREATMENT OF THE VERTIGO OF BRIGHT'S DISEASE.

Dr. J. R. Saunby says, in the *Brit. Med. Jour.*, even where we cannot hope to effect a cure of the disease itself, it is often of the greatest moment to be able to relieve a symptom which is rendering life worthless. Vertigo is not a very common symptom in chronic Bright's disease; but, though, it does not receive much attention from text-book

writers, when it is present, it is a very serious matter to the sufferer, and often assumes a pre-eminent position in his own account of himself. After trying various remedies, I have found the greatest benefit from caffeine or theine, in doses of one, two, or three grains, in pill, three times a day. The following cases are examples: S. K., aged 69, complained of severe giddiness, but proved to be a typical case of granular kidney; after taking without benefit chloride of ammonium, iodide, and bromide of potassium, he was entirely relieved by caffeine in grain doses three times a day. J. W., aged 63, complained of giddiness, pain in the head, and loss of memory. The ophthalmoscopic signs were negative. The urine was of specific gravity 1.001: it contained a trace of albumen. She had frequent nocturnal micturition. She was ordered at first chloride of ammonium and digitalis; then theine, in doses gradually rising to three grains, three times a day, when the vertigo was completely cured. I have notes before me of two other cases equally satisfactory.

#### THE ABORTIVE TREATMENT OF BUBOES WITH CARBOLIC ACID.

Dr. Morse K. Taylor, U.S.A., in the April number of the *American Journal of the Medical Sciences*, reports twenty cases in which he certainly obtained remarkably successful results, and he states that within the last seven years he has treated nearly one hundred and fifty cases of various forms of lymphadenitis, arising from specific and non-specific causes; and, where he saw the cases before the formation of pus was well established, he had not failed to arrest the process immediately, and allay the pain in a few minutes. His method is to inject from ten to forty minims of a solution, containing eight or ten grains of carbolic acid to the ounce of water, directly into the interior of the inflamed gland.

#### THE PROPER METHOD OF ADMINISTERING THE BICHLORIDE OF MERCURY IN SYPHILIS.

By C. A. BRYCE, M.D.

Richmond, Va., President Old Dominion Medical Association, Editor Southern Clinic, &c.

I almost invariably use the bichloride in treating syphilis, and my dose ranges from the twentieth to the sixtieth of a grain. I usually prescribe it in twenty-fourth grain doses; I always give it in an *alcoholic* solution and uncombined with any other drug. I believe this is a most important matter.

For years I have, in the treatment of a very large class of syphilitic diseases, never given any other form of mercury but the *bichloride*; never combined with potass. iod., nor any of the alteratives. My prescription for adults is generally about as follows:

℞. Hyd. chlo. corrosiv..... gr. ii.  
Spts. vini gallic..... ʒ ii.  
Aq. distil..... ʒ iv.  
M. S.—Teaspoonful before each meal.

At one time or another I may have recourse to other alteratives, tonics, &c., but generally I find this ℞ sufficient to prevent constitutional disturbances, if I see the patient early, and quite sufficient to cure constitutional syphilis when not of long standing, and beneficial in all stages of the disease.—*Mississippi Valley Medical Monthly*.

#### SOME POINTS IN THE TREATMENT OF FRACTURES.

By OSCAR J. COSKERY, M.D.

Professor of Surgery, College of Physicians and Surgeons.

1. Set at once.
2. Never use chloroform if it can be avoided.
3. All that are required in setting a limb are delicate manipulation, well-padded pieces of stiff material and a roller.
4. Absence of pain, of deformity, and of hemorrhage in compound fractures are signs of successful adjustment.
5. The movable-immovable apparatus, as exemplified in the plaster of Paris *splints*, is, perhaps, the best form of apparatus for the great majority of fractures.
6. Confinement to bed over twenty-four or forty-eight hours (except for the thigh) is rarely, if ever, necessary in uncomplicated fracture.
7. Passive motion is apt to do more harm than good.
8. It is better to keep the mechanical appliances, the splints, on too long than for too short a time.—*Maryland Medical Journal*.

#### ACUTE CYSTITIS TREATED WITH ERGOT.

Some time ago I was called to see Mr. B., aged twenty-seven years, and found him suffering with a well-marked cystitis. After trying several commonly-used remedies without success, I resorted to fluid extract of ergot, in dram doses three times daily, which made a rapid and complete cure. Since this time I have treated at least a dozen cases with this remedy, and it has in no instance failed to give a happy result.

I would be glad if other physicians would report their experience with the drug in the treatment of this troublesome disease.

W. C. L., M.D.

[Dr. Bumstead recommends ergot in acute cystitis. His favorite prescription is—

℞ Vini ergotæ..... ʒ iiij.  
Tinct. ferri chloridi..... ʒ ij.  
M. Dose, a teaspoonful every six hours.]

—*Louisville Medical News*.

# THE CANADA MEDICAL RECORD,

Monthly Journal of Medicine and Pharmacy.

EDITORS :

FRANCIS W. CAMPBELL, M.A., M.D., L.R.C.P., LOND.

R. A. KENNEDY, M.A., M.D.

JAMES C. CAMERON, M.D., M.R.C.P.I.

SUBSCRIPTION TWO DOLLARS PER ANNUM.

All communications and Exchanges must be addressed to the Editors, Drawer 356, Post Office, Montreal.

MONTREAL, JULY, 1882.

## GUITEAU.

At last the solemn farce is over ; the assassin of President Garfield has paid the penalty of his crime on the scaffold. The exalted position and noble character of the victim and the peculiarly distressing circumstances of the murder have combined to excite the interest and call forth the sympathies of the civilized world ; while the popular craving for the sensational, and the readiness of the daily press to pander to this depraved taste, have enabled Guiteau to absorb a far larger share of public attention than he really deserved. From a medical point of view the case presents many features of interest ; but some time must elapse before the numerous conflicting theories of to-day are harmonized, and the points at issue definitely settled. Meanwhile, it is to be feared that the general reputation of the medical profession has not been improved by the conduct of some of its members who figured prominently in the case. The unfortunate conflicts of opinion and unseemly squabbles between medical men during the illness of the President and the trial of his assassin, have not only tended to demonstrate to the general public how widely different are the views of representative men upon the most important questions, but have also laid bare an amount of discourtesy petty jealousy and professional rivalry which is highly discreditable to our profession. While the President lingered through those memorable twelve weeks of suffering, the profession was scandalized by the ignorance and assumption of such men as Dr. Bliss ; the conduct of the medical attendants was weak and vacillating ; their official bulletins were meagre and misleading ; their sayings and doings were daily criticised in the public prints by scores of *would-be* atten-

dants, till at length public confidence was shaken, and general dissatisfaction expressed with the medical management of the case. After the President's death, even the autopsy was sadly bungled and the profession again publicly disgraced. Then came the memorable trial at Washington ; Guiteau was arraigned, and the plea of insanity put forward in his defence. Forthwith crowds of experts flocked to Washington, and aired their respective hobbies, while the assassin was permitted to insult daily the judge, lawyers and witnesses, and amuse densely-packed audiences with his impudence and buffoonery. As an exhibition of forensic knowledge and ability, the trial was equally discreditable to the professions of law and medicine ; it took them eight months to decide that Guiteau knew what he was doing when he shot the President, that he knew his act to be wrong because contrary to the law of the land, and that, consequently, he was sane and responsible when he committed the murder. The usual appeals and petitions having failed to secure a reprieve, the death sentence was carried out on 30th June, almost a year after the perpetration of the crime. And now we are called upon to witness a disgraceful squabble among the medical men who were entrusted with the post-mortem examination of the assassin. Charges and countercharges, threats and recriminations, published in the columns of the daily press, make a discreditable ending to a most discreditable case.

Medical men in general, and psychologists in particular, are usually loud in their denunciations of the legal test of responsibility which at present obtains. They are tolerably unanimous in styling the "*right and wrong test*," as "*a legal myth*," a "*relic of barbarism*," etc. ; but when called upon to suggest a better one, their unanimity ceases, and their theories and views are found to be as dissimilar as they are unpractical. The present case has not helped matters, each psychologist has arrived at a different diagnosis, and each appeals confidently to posterity to establish the correctness of his own particular theory. Law has not learned much from medicine during the progress of this trial ; and, unfortunately, the public have been left with the impression that any rogue possessed of sufficient cunning and determination could, with little difficulty, convince some willing insanity experts of his mental unsoundness and irresponsibility. "*Quod volumus jubemus*," seems to be the motto of many of these

psychological gentlemen. The New York *Medical Record* in commenting upon Guiteau makes the following very sensible remarks :—

“Guiteau, and all Guiteaus, should, in the present stage of society, be considered responsible, and should be punished. The protection of society and the demands of justice alike call for it.

There has been much said of late about ‘the best leading experts,’ and how sure they are that Guiteau is insane. These experts are quite entitled to their opinion, but it is a mistake to suppose that they represent all the best and widest experience in psychiatry. That in the future Guiteau will be considered insane and irresponsible we cannot believe, assuming that futurity will interest itself in the assassin at all.

Guiteau was the victim of a peculiar psychosis. He was not sane, but we hold that future jurists and experts will find themselves in trouble if they class this psychosis strictly among the insanities. The difficulty that will arise has already shown itself. The insane man cannot do a criminal action; he is not, and cannot be, criminally responsible. This truth has rarely been questioned. Yet society cannot and will not tolerate the idea that so-called ‘reasoning maniacs,’ of the Guiteau type, are irresponsible and require no punishment. Difficulties, disputes, injustice, even social danger, will arise if an original moral perverseness, developed by self-indulgence, makes a man a lunatic, incapable of crime.

Moral insanity has been the bane of the code, and it will continue to be as long as experts insist that Guiteaus are irresponsible. There is such a thing as ultra-expertness, as too much specialism. It sees an uncanny light in every eye. Its psychology deserves to be written.”

#### CONSULTATIONS WITH HOMŒOPATHS.

Unusual interest has been manifested in the proceedings of the American Medical Association, which met recently at St. Paul, Minn. Some months ago the Medical Society of the State of New York, chafing under the restraints of the American Code of Ethics, framed and adopted a new code, permitting free consultations with competent practitioners of any school. It was claimed that thereby all semblance of prejudice and bigotry would be removed, and the tone of the whole profession elevated. In the millennial days

which would then assuredly come, medical men of all descriptions would lay aside their own particular creeds, dogmas or pathies, and meet together amicably as “true and honest practitioners.” This revolutionary action of the New York Medical Society aroused a perfect storm of opposition throughout the length and breadth of the land, and the journalistic war became fierce and bitter. The Medical Societies of other States hastened to condemn the New York Code, and instructed their delegates to the American Association to oppose any change in the American Code. It soon became evident that professional opinion throughout the United States was almost unanimously against the innovation, and that the New York State Society stood alone, championed only by its faithful ally, the New York *Medical Record*. At St. Paul, the American Medical Association refused admission to the New York delegates, and pronounced emphatically against any relaxation of existing rules. It also repudiated the name “*Allopath*” as applied to members of the regular profession, and defined the position of medical men under the code by the following resolution :—

“In order to correct a misconception which largely prevails in the public mind, and to some extent prevails among members of the medical profession, as to the liberty of action authorized by this Association in the treatment of disease, we deem it proper to make a declaration of principles broadly applicable to the healing art, as sanctioned and practised under our code, to wit: Rational medicine, being based upon experience and pathological research, demands absolute freedom in the selection and administration of *medicamenta*; and there is nothing in the code of ethics of the American Medical Association prohibiting the use by its members of any known and honorable means of combating disease. Furthermore, as contributing to the alleviation of human suffering, we hail with pleasure and gratitude every discovery in etiological and therapeutical science by whomsoever made.

We therefore reject as untrue and obnoxious the term “*Allopathists*” as applied to the members of this Association by dogmatists and extremists without its fold.

*First*.—Because it tends to convey the erroneous impression that we are restricted to the choice of remedies and the method of using them by other than the limits of rational science.

*Second.*—Because for any association of men claiming to practise the profession of medicine to adopt a name based upon limited and conjectured theories of therapeutics for the purpose of designating a particular school of medicine, we have always held, and still regard, as unscientific in principle and dangerous in practice."

## COLLEGE OF PHYSICIANS AND SURGEONS.

### PROVINCE OF QUEBEC.

The following is a statement showing the number of judgments rendered against charlatans and unlicensed practitioners and midwives, from the 1st May, 1881, to the 1st July, 1882.

John Rosco, Montreal, judgment rendered in November, 1881. Fine \$25 and cost, or thirty days in common gaol.

Richard Birch, East Templeton, Ottawa Co., judgment rendered in November, 1881. Fine \$25 and cost, or 30 days in common gaol.

Denis Dragon, Montreal, judgment rendered in June, 1881. Fine \$25 and cost, or 30 days in common gaol.

Joseph Quintal, Longueuil, judgment rendered on the 31st October, 1881. Fine \$25 and cost, or 30 days in common gaol.

Joseph Rondpré, Ste. Anne de la Pérade, confessed judgment on the 11th June, 1881, and paid \$25 and cost.

Gabriel Courchêne, La Baie, Yamaska Co., confessed judgment on the 25th October, 1881, and paid \$25 and cost.

Dame Emelie Lebrun, St. Benoit, unlicensed midwife, confessed judgment on 8th October, 1881, and paid \$15 and costs.

Mathieu Souvielle, Montreal, confessed judgment and paid \$25 and cost, 25th October, 1881.

Dame Jean Rousselle, alias Le Petit, Quebec, judgment rendered on the 14th February, 1882. Fine \$25 and cost, or 30 days imprisonment.

Jérôme Fiset, Quebec, judgment rendered in April, 1882. Fine \$25 and cost, or 30 days imprisonment.

Michel Garon, Montreal, judgment rendered in November, 1881. Fine \$25 and cost, or 30 days imprisonment.

John Flint Gore, unlicensed practitioner, Stanstead, confessed judgment 2nd March, 1882, and paid \$25 and cost.

Dame Margaret McIntosh, Montreal, unlicensed midwife, confessed judgment, October 1881, and paid \$20.

Dame Antoine Guertin, Montreal, unlicensed midwife, confessed judgment and paid \$10.

Theodore Davis Whitcher, Beebe Plain, judgment rendered on the 30th June, 1882. Fine \$100 and cost, or 30 days imprisonment.

Jean Jacques, alias Leblond, St. Pierre les Becquets, judgment rendered 30th June, 1882. Fine \$25 and cost, or 8 days imprisonment.

Theodore Davis Whitcher, Beebe Plain, Stanstead County, judgment rendered, second case, on 30th June, 1882. Fine \$100 and cost, or 30 days imprisonment.

### A VERY JUVENILE MURDERER.

Probably the youngest example of the genus murderer is Master Alfred Burdett, æt. 33 months, a native of Leicester, who was last week declared to have, in all probability, caused the death of another infant twenty-two months old. The victim of this homicidal child had been playing apparently with his murderer, who, at any rate, was discovered walking away with blood-stained pinafore from the unconscious body of the deceased; and at the same time the former held in his hand a piece of tin with which he had presumably fractured the latter's skull. The tender years of this promising candidate for distinction in the criminal ranks of the future serve to remove him from criminally-responsible breakers of the law; but it is with small surprise that we hear of frequent complaints of his ill-using children having been made. This instance of precocious depravity is perhaps an unusual one, but it possesses an interest of its own as showing the possibility of the worst passions being developed in children of even such immature years. As a psychological study the case possesses an unusual interest, and is worthy of very careful consideration on its bearing on the development of the human mind.—*Med. Press and Circular.*

### PAPOMA.

There has lately been introduced to the notice of the profession in Canada, by J. Wyeth & Bro., of Philadelphia, through their agents in Montreal, Perry, Son & Lawrence, a farinaceous food for infants and children which deserves more than a passing notice. It has been advertised in the RECORD some time, but we desired to practically



test its usefulness upon a large scale before pronouncing an opinion. This we have done for the past four months, during which time Papoma was the almost exclusive diet for artificially fed children under our charge. The results have been satisfactory in a high degree. The food was in every instance readily taken, digestion seemed to be carried on perfectly, and the bowels acted with marked regularity. Its nutritive power is great, for growth was steady. In several instances where development was apparently at a standstill the change of food to Papoma was followed in a few days by decided improvement. We have, therefore, no hesitation in recommending Papoma to our readers as a very valuable addition to the list of infantile foods.

#### AN IMPORTANT AND SEASONABLE REMEDIAL AGENT.

The value of Lactopeptine in many forms of indigestion and malnutrition is already fully recognized by our readers. We desire, however, to direct attention to its especial indication in the complaint particularly attaching to present season, viz. : malnutrition and cholera infantum, whether arising from teething or other causes. We have before us a large number of commendatory letters from physicians in this country, Great Britain and the United States, enumerating cases which have been successfully treated with Lactopeptine, and in most of which Pepsin had failed to benefit. With a great many, the above preparation has entirely superseded the use of Pepsin, and we consider that such preference is fully justified.

#### AMERICAN DELEGATES TO THE BRITISH MEDICAL ASSOCIATION.

At the recent session of the American Medical Association the following gentlemen were selected as delegates to the British Medical Association :— Drs. T. A. Emmet, D. Lewis, E. H. Brush and W. M. Carpenter of New York, and Dr. J. M. Da Costa of Pennsylvania. The Association meets this year at Worcester on August 8th, 9th, 10th and 11th. The proceedings will be of unusual interest as the Association celebrates its fiftieth anniversary.

#### THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

In view of the remarkable success of the *British Medical Journal*, the official organ of the British

Medical Association, the American Association is taking steps to issue on a similar plan a weekly journal as its official organ, instead of publishing, as heretofore, a bulky annual volume of transactions. A board of trustees has been appointed to arrange plans and details.

#### A TEN-OUNCE BABY.

The *Medical Record* reports the case of a New York woman who gave birth recently to a living son weighing ten ounces. Two years previously she bore a son weighing eleven ounces, who thrived and grew till he is now nearly as large as an average child of the same age. The woman and her husband are of natural size.

#### WHAT LUNATICS THINK CONCERNING THE RESPONSIBILITY OF THE INSANE.

At the debating society organized by the patients in the Lunatic Asylum at Hanwell, England, the question of the responsibility of the insane was recently discussed. The conclusion was reached that the insane ought to be considered responsible. One of the patients, who shot at the Queen of England, confessed that he never would have done it if his predecessor in the same crime had been executed.—*Med. Record.*

#### MORTALITY OF MONTREAL FOR THE MONTH OF JUNE, 1882.

Males .....	190
Females.....	182

Total .....	372
-------------	-----

Still births.....	21
-------------------	----

Mortality under 5 years of age.....	207
-------------------------------------	-----

Deaths from zymotic diseases were as follows :—

Small-pox .....	0
Measles ....	7
Scarlatina .....	5
Diphtheria .....	20
Croup.....	4
Pertussis.....	2
Typhoid Fever.....	12
Other Fevers .....	12
Dysentery.....	1
Diarrhoea.....	16
Cholera Infantum..	14
Other zymotic diseases....	2

Total .....	95
-------------	----

There has been a marked increase in the mortality from measles, scarlet fever, typhoid fever and the diarrhoeal group.