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[No. 5.

Original Communication.

CIRCUMSPECTIVE REVIEW OF HYGIENE.

(Continued.)

Medical Police or Public Hygiene, founded upon the deductions of science, and the results of experience, and regulated by an enlightened legislation, exists not among us. And yet how pressing the necessity! It is true our country is no longer periodically decimated by ravages of plague, sweating sickness and other infectious diseases that a few centuries ago carried off its hundreds of thousands, yet we have epidemic visitations of typhoid, small-pox, malignant scarlet fever, diphtheria, and that sufficiently frequently one would have thought to have aroused not merely the exertions of philanthropic humanity to the relief of the attendant sufferings, but also to have alarmed selfish or careless apathy into the endeavour of providing preventives and precautions. If there is one axiom more indisputable than another in medical experience, it is that where filth and dirt prevail, that where the neglected habitations of a crowded, squalid and wretched population exist, there will be found especially the ravages of epidemic disease to prevail so that the direction of its progress over a town or district may be unerringly predicted by one acquainted with the topography of the misery of the neigh-

bourhood. Witness the almost constant habitat of small-pox in the tenement houses of the poor French quarter of Montreal. This is, moreover, no barren fact, for the position that these physical conditions do generate or propagate epidemic disease, is scarcely less easy of demonstration than that they are for the most part removeable. A regular system of inspection and licensing of these lodging houses should be promptly put in force, nothing short of immediate and strong legislative interference will suffice for the public protection. A continued neglect of legislation on the subject must entail increased charges on ratepayers by rapid multiplication of widowhood and orphanage incidental to the premature death of the breadwinner. In an admirable lecture by Mr. Combe, intitled "Preservation of Mental and Bodily Health, a Moral Duty," he remarks at page 75, that in tracing to their source the calamities which arise to families and individuals from bad health and untimely death, attended by deep laceration of the feelings and by numerous privations, it is surprising how many of these calamities may be discovered to result from slight but long continued deviations from the dictates of organic laws. Perhaps, he says, for instance, the victim was an ardent student, and under the impulse of a laudible ambition to excel in his profession, he studied with so much intensity, and for such long periods in succession that he overtasked his brain, and destroyed his bodily health, when suddenly he was seized with fever, with inflammation, or with consumption, and in a short time he was carried to the tomb. Dr. Robert Maenish, well known in the literary world by his "Anatomy of Drunkenness," "Philosophy of Sleep," and other works, says, "On four several occasions I have nearly lost my life from infringing the organic law. When a lad of fifteen I brought on a brain fever from excessive study which nearly killed me; at the age of nineteen I had an attack of peritonitis occasioned by violent efforts in wrestling and leaping, and while in France I was laid up with pneumonia brought on by dissecting in the great galleries of La Pitie with my coat and hat off in the month of December, the window next to me

being constantly open, and in 1829 I had a dreadful fever occasioned by walking home from a party, at which I had been dancing, on an exceedingly cold morning without a cloak or great coat. All these evils were of my own erecting, and arose from a foolish violation of laws which every sensible man ought to observe and regulate himself by." Another principle held by Mr. Combe is this, "The great requisite of health consists in the preservation of all the leading organs of the body in a condition of regular and *proportionate* activity; to allow none to become too languid, and none too active." In his estimation, the result of this harmonious activity is a pleasing consciousness of existence experienced when the mind is withdrawn from all exciting objects and turned inwardly on its own feelings. With regard to the advantages of cleanliness and exercise as elements in his prophylactic discipline this moralist adduces a variety of illustrations which are not the less apt and applicable because they are homely. In a state of nature, animals are remarkably cleanly in their habits; the feathered tribes dress their plumage and wash themselves in the brooks; the domestic cat carefully preserves a clean sleek, shining fur; the dog rolls himself on grass or straw; when grazing the horse does the same. Again, in a state of nature, there has been imposed on the lower animals in acquiring their subsistence, a degree of labour which amounts to a regular exercise of all their corporeal functions. At the same time, their food has been so adjusted to their constitutions, that they are well nourished, but very rarely rendered sick through surfeit. Man differs from brutes in this, that instead of blind instincts he is furnished with reason, which enables him to study himself, the external world and their mutual relations, and to pursue the conduct which these point out as beneficial.

CAN ANYTHING BE DONE TO STOP THE INCREASE OF INSANITY AND IMBECILITY ?

Extracts from a paper by HENRY HOWARD, M.D., Medical Superintendent of The Provincial Lunatic Asylum, St. John's, P. Quebec.

(From the Canada Medical and Surgical Journal.)

The importance of the foregoing question will be at once admitted, when we see that by the last Census, there were in the Dominion of Canada 9,423 persons of unsound mind, and that in the Province of Quebec, alone, there were 3,300. All scientific men agree that the question is assuming grave importance; but the difficulty is to see what can be done. *

* * Insanity is a mental disease produced by some abnormal state of part or whole of the mental organization; whether the moral or intellectual faculties, or both. If body and mind are not one, yet so close is the connection between them, that one cannot suffer without the other suffering also, therefore the immediate or exciting causes, and they are many, that produce this disordered state of the mental organization, may be either mental or physical. Observation, however, shows that no man can go mad from any amount of mental suffering, unless he has in him an insane neurosis, that is, a pre-disposition, whether hereditary or otherwise, to go mad. It is an established fact, founded upon observation, that in all cases of insanity, there is more or less devitalisation of the mental organization; and again, that all suffering, whether mental or physical, diminishes vital power, or more correctly speaking, vital force. *

To speak of the infantile population it is necessary to classify according to mental organization. Some children are born into the world of strong, healthy parents, physically strong, and of a mental organization healthy, strong and well-balanced, that is, well balanced with regard to intellectual and moral faculties. These are fortunate children, that God and nature has done well for. A child of such a stamp, under ordinary training, becomes a great man, great in the true sense of the word, no matter in what position of life he may be. Whether statesman, professional man or mechanic, merchant or farmer, that man will do right, because it is right. He will grow up strong in body and mind. No amount of mental suffering will break him down. He will never find his way into a Lunatic Asylum

Some children are born weak in body and in mental organization, but at the same time with the intellectual and moral faculties well balanced. Such a child having wise parents and teachers, who will attend properly to his physical and mental education, will have his moral and intellectual faculties well developed, as he will have his physical force; and although never equal to the other, he will nevertheless be a great man, and never likely to become deranged. But should he be neglected or badly treated in youth, God help him when a heavy trial comes on him. He won't stand very much.

Next we have the child, perhaps physically strong, with high intellectual and low moral faculties, that is, a badly balanced mental organization. If his moral education is not well attended to in his youth, and by such education his moral faculties developed, he grows up a bad and dangerous man, and the more dangerous that he is smart and bright. Such a man is easily known by his moral crookedness and egotism. It is such men that we find sharpers, swindlers, gamblers, &c., men who worm themselves into the confidence of families, and make their homes desolate. These are men who do not know what honor means. They are *uadu uadu*, who by detraction destroy the good name of their neighbors, men who are always wishing to make fortunes in a day, and sneer at their betters who are content to do their duty in that state of life to which it has pleased God to call them. These men are generally too clever to be caught in the meshes of the law; men who as a rule are the curses of society. And when the storm comes on them, not having any strong moral faculties to fall back upon, in the end they break down, and become insane.

Next we have the child of high moral and low intellectual faculties. If such a child gets a fair chance, his moral faculties will stimulate his intellectual, so that he may rank, in time, with ordinary men. But if his intellectual faculties are not well attended to in his youth he will grow up a religious fanatic, a "one-idea man." He will try to cram his opinions down everyone's throat. A man that will be willing to be persecuted and made a martyr of; a regular pest to society, one of those men that O'Connell called a religious fool; he generally ends in becoming a religious maniac, and a pest to whatever Lunatic Asylum to which he happens to be admitted.

The next in classification are Imbeciles. These are children of very low mental organization, differing, however, in degree. There are some that can, by great perseverance on the part of parents and teachers, be brought to learn much, yet under no

circumstances will they ever be of a strong mind, and very little trouble at any time will drive them into a Lunatic Asylum. It is from this class, when neglected in youth and brought up in a state of moral depravity, that our most vile criminals come, and it is an extraordinary fact that they rarely ever go mad as long as they can carry on their career of crime. It is when a check is put upon their criminal acts, and they are obliged to live according to prison rule, that reason forsakes them. It would appear as if crime itself were the very safety-valve that saved them from becoming lunatics. It must be remembered what the peculiar class of persons of which I am speaking of is,—I am speaking of the Imbecile, neglected in youth; one that has never learned anything but evil. As a rule, these creatures are the children of debauched and drunken parents. Some imbeciles are so very low in their mental organizations as to approach the idiot. They are not in reality idiots, but they are not responsible beings, and should never be at large, but under proper surveillance. They are a most dangerous class of beings, as they will gratify their animal passions without any compunction. It is such creatures that commit the most revolting rapes and most horrible murders.

The next order of classification is the congenital idiot. He is generally, but not always, the offspring of imbecile parents.

From the foregoing facts I consider that it is self-evident that there can be no *general* system of education, either physical or mental, suitable for all children; consequently I hold that much of the increase of insanity and imbecility is due to the present system of education, I would say the present high-pressure, forcing system. * * * * I believe it is this forcing of the mind at schools that is destroying the mental organizations of so many, and is one of the great causes of insanity. It must be remembered that the mind is always acting quite as independently of the will as the liver, the heart and lungs, and the stomach. The power the will has over the mind is *limited*. In some organizations the will can direct the mind in a very great degree; in others the will can direct the mind in a very small degree. One boy can so direct his mind as to commit to memory a page of history in a few minutes; such was the power of the late lamented D'Arcy McGee. Another boy by no amount of his will can ever commit much to memory, and the greater his effort the more he tires out his brain, and the less he knows. I would ask how there can be a general system of education for such opposite mental organizations? * * * There is no diffi-

culty in knowing when a man or a boy has muscular fatigue from manual labor or over exercise; but it is not always easy to know when the mental organization is fatigued. I think, however, that it can be known: for example, when a man reads a couple of hundred pages of any book and finds that he remembers the first pages better than the last twenty or thirty, he may be very sure it is time for him to stop; he will retain nothing of what he is reading, and is only injuring his brain. So with a young boy at school, he repeats his lesson to his teacher tolerably well, the teacher is not satisfied, the boy is sent back to study his lesson again: the second time he repeats it worse than the first, although, poor boy, he has done his best, but his brain was tired, and very probably he is punished for what was no fault of his. I think the foregoing clearly establishes two facts; firstly, that where children are of such different physical and mental organizations, there can be no general system of either physical or mental education applicable to all, in fact, that which is good and wholesome to one is death to the other; secondly, as in all schools there is a general system of education, the only classification becomes the ages of the scholars, and it must of necessity follow that our present system of education is injurious to the physical and mental growth of the scholars, and consequently that we have so many of our youth of both sexes growing up weak in body and weak in mind, and that there is such a terrible increase of insanity. There is no doubt that teachers are much to blame for this state of things; but then parents are much more blameable. In infantile life mothers as a rule leave their children too much to the care of servants, because they are either too lazy or too *à la mode* to take care of them themselves, in fact, because it is not fashionable. The last thing a child should feel at night is its mother's kiss, and it should go to sleep in looking at the mother's loving eyes; but instead of this the child is left to the tender mercy of a servant, who frightens it to sleep that she may have a chat with John, while the fashionable mother is gone off to hear that dear man Mr. Balderdash lecturing upon Physiology of Man, or some equally interesting ology. Then, as children grow up, they are packed off to boarding-schools—*firstly*, to get them out of the way; *secondly*, because it is fashionable; *thirdly*, because the pride and ignorance of the parents are so great, that they fancy because they have money their children must have brains, and must be educated to the highest standard. So children are sacrificed to the laziness, pride and ignorance of the parents.

Another fault of parents from which the children suffer is that they do not know how to choose the proper teacher and when they have one they don't know how to treat him. They begrudge to pay an educated gentleman as well as they would pay their servant, and treat him with half the respect, and then, poor souls, they expect the teacher to take an interest in their children, and they expect the children to love and respect the teacher, and in time they find themselves disappointed in both their expectations. Let parents pay a teacher well that he may live as becomes a gentleman, and let them in every other respect treat the teacher as their equal, then they will have some claim upon him, and if he is a true teacher he will do justice to their children, and the children will not only love and obey him while under his care, but will love and revere him during their lives; he will always be to them "THE MASTER."

It is a melancholy fact, from which great evil has resulted, that men and women fancy when they can do nothing else they can teach; now there never was a greater mistake; no person, no matter how well educated he may be, can teach, unless he is actually born a teacher; no act of the will can make a man a teacher, no more than an act of the will can make a man a poet. It is not necessary that all teachers should have the same degree of education, but all teachers should have the knack, should be capable of imparting the knowledge they possess, in part or whole, to those they attempt to teach, depending of course upon the soil they have to sow the seed in, whether it be of a high or low mental organization. A teacher should be naturally of a cheerful, mild, amiable disposition, loving and loveable, one that would rule by love and not by fear; cheerful, loving obedience is what can be depended upon, and this is impossible with the present system of education. The true teacher will make it his study to know his scholars thoroughly, to know their mental and physical capacity, and treat their mental and physical powers accordingly. He will be able to say to their parents whether their son is or is not fit for the highest order of education, and thereby prevent many poor boys from losing unnecessary time trying to learn what they never can learn, ending in disappointment and being disgusted with themselves and the world.

I have thus endeavored to show that the present system of education is bad, is radically wrong, and is the cause of one of the great causes of the spread of insanity. Some one more capable than I am must show how that system can be im-

proved. I will merely say there is too much study on the part of the scholars, and too little teaching on the part of the teachers. It is all books, books, morning, noon and night; no end of books. The books a boy is expected to go through in eight or ten years, he could not go through in thirty. Let all this book learning be stopped; let there be more black-board and chalk, and lecturing from teachers. I believe a child should be taught its alphabet on the black-board, to spell on the black-board, arithmetic on the black-board, geography, history and mathematics all on the black-board, globes and maps, and from the mouth of the teacher; and instead of sticking every day for a certain time in badly ventilated school rooms, let the master frequently take his boys for a day out into the country, and there in conversation and amusement and good healthy exercise teach his pupils from Nature, lecture to them on the mountains, vales, rivers, trees and rocks. Thus will youths be truly educated; thus will they grow up strong in body and strong in mind.

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VALUE OF VACCINATION.—The following statistics have been compiled from the books of the Montreal General Hospital, and any person can assure himself of their correctness by calling at the Hospital and enquiring for himself. During the past twelve months there have been 55 *unvaccinated* persons admitted into the small-pox wards. All of them except five have had the confluent form of the disease, *i. e.* the serious form; and out of the 55 who were admitted 28 died, showing a mortality in the *unvaccinated* of over 50 per cent. On the other hand, among those who had been once vaccinated and had two good marks on the arm, there were only four deaths. Only seven had more than two good marks, and those seven had the mildest form of the disease, and made a rapid recovery. Only two cases were admitted during the last twelve months who had been *successfully revaccinated*, and in them the disease was so mild that they might have been permitted, except as a precautionary measure, to follow their ordinary avocations. And what conclusions would any sensible man make from these data? In the *unvaccinated*, the mortality was over 50 per cent.; among those who had been properly *vaccinated* in their infancy, but who had neglected to be *revaccinated*, there were only four deaths, while only two cases had been admitted where *revaccination* had been successfully performed, and they were of the mildest description."—*Montreal Gazette*.

WHAT A BUREAU OF SANITARY STATISTICS IS EXPECTED TO ACCOMPLISH.

Extracts from Dr. Brouse's speech in the House at Ottawa last session, not published in the leading Western papers.

“ I will now place before the House a synopsis of what in my humble opinion the formation and working of this Central Board would reasonably be expected to accomplish. First, we should endeavour to collect and disseminate among the people of the Dominion useful information on subjects relating to public health. Much ignorance prevails on this subject; and then I would remark that the truths of sanitary science should be made so plain, and yet so thorough as readily to be understood, and should be taught in our schools. A mistake too generally prevails among parents and teachers that we should train the infantile brain with a knowledge of the dead languages, while the practical truths of physical development and the prolongation of life are left unexplained. Secondly, it should be made imperative to acquire information by means of works on hygiene, correspondence and practical scientific experiments. Thirdly, we should endeavor to promote and encourage the formation of auxiliary boards. In the fourth place there should be combined with the sanitary Bureau, the collection and compilation of statistics, and all information relative to zymotic diseases, epidemics of every nature, and the best means to prevent their spreading. This proposition is of more than ordinary consideration to us in this Dominion. It is the business of the Sanitary Commission, composed of men of the highest intelligence, men of great learning and science, to prevent the extension of disease. Then as regards diseases common with artizans, resulting from confinement in shops, from over-crowding, and from want of ventilation. I would here remark, that at different periods England has found it necessary to take action to consider this proposition. In 1819 a Commission was appointed in Ireland to consider the sanitary condition of her people, and the results proved the wisdom of that action. In 1844, England again felt the necessity to legislate in order to appoint a Sanitary Committee to inquire into the hygiene of large towns and populous districts, with a view to a practical result. Allow me to give the words of Professor Guy, one of the most distinguished men of his age and who constituted one of the Commission:—
“ That this inquiry has taught me that a great saving of human

life may be confidently looked for in an unexpected quarter. That out of 36,000 deaths a year in England and Wales, which were attributed to *true* pulmonary consumption, 5,000 could be saved by increased space and ventilation in shops, work-houses and factories." Again, the drainage of cities and the analysis of the soils should receive attention; for in Brockville, which stood upon a stratum of granite rock, typhoid fever had made few if any victims. The hygiene of our homes, our schools, hospitals and public institutions, required to be examined, and the ventilation so improved that zymotic diseases, pyemia, erysipelas, small pox and the like should be unknown. * * *

Public hygiene is a large and comprehensive subject—
—nay, but science. It has to do with persons of every rank, of both sexes and every age. It takes cognizance of the houses in which we live, of our occupations and mode of life, of the food we eat, the fluids we drink, and the air we breathe. It follows the child to his school the laborer to his field, the miner to his pit, and the artizan to his factory and his workshop; the sick man to the hospital, the pauper to the work-house, the lunatic to the asylum, the thief to the prison. It is with the sailor in his ship, the soldier in his barracks, and it accompanies the emigrant to his home beyond the seas. The consideration of this subject is one of the most ennobling to which the mind can be directed. It is for the elevation and improving of the human race. It was this consideration for which a Wilberforce devoted his life to improve and ennoble the human race. It was this that caused a Howard to traverse Europe and travel from prison to prison, to make himself familiar with the condition of his fellow men, under hope of improving their position; and it was in learning this noble work that he lost his life and his bones now bleach on the plains of a distant Tartary. Feeling as I do the deepest interest in the future greatness of our young Dominion, I desire to urge the formation of this committee, and a favourable action of the Government.

PETRIFICATION VS. CREMATION.—Dr. Steinbois, of Wurtemberg, proposes to dispose of the dead by a process of petrification;—by placing the body in a trough of cement and then filling the intervening space with liquid cement, which will harden and convert the whole into a solid mass of stone. The blocks thus obtained may be disposed of almost as inclination dictates.

AMERICAN PUBLIC HEALTH ASSOCIATION.

EXTRACTS FROM PAPERS READ AT THE LATE MEETING.

[Continued from page 115, No. 4.]

Dr. A. N. Bell, of Brooklyn, N. Y., read a paper on "Perils of the School-room, which Demand the Attention of Educational and Sanitary Authorities."

He quoted from the Eighth Report of the Medical Officers of the Privy Council, Great Britain, that children require as much breathing space as adults; "children and adults should be deemed to require equal allowances of air and ventilation."

The poisonous effluvia he said, which pervades the atmosphere of close and unventilated rooms is not only re-breathed, but it adheres to all the surroundings; it sticks to the walls and furniture, settles into the drinking cups, into the food utensils, food and drink, permeates the clothing, and attaches to the person. It creates a nidus, which is not only in itself poisonous, perpetually lessening the vital force of all who inhabit it and predisposing to blood poisons of every kind, but it also becomes a hotbed for the planting and propagation of specific poisons, such as small-pox, scarlet fever, measles, whooping cough, diphtheria, and the whole category of epidemic diseases, and a fruitful source of scrofula and consumption. The consideration of these diseases in detail, and their relations to crowded and unventilated places, would comprehend a treatise on the predisposing causes of epidemics. It may be stated in general terms, however, that the specific poisons which perpetuate this class of diseases are kept alive by the conditions common to school-rooms, always exist somewhere, and the history of them all demonstrates alternations of repose and activity, of prevalence in one place and absence in another, of successive invasions of contiguous neighborhoods and succeeding immunities. But the specific morbid poisons, the *seed*, never die; they remain and live on from generation to generation, ever susceptible to enlivening influences, and liable to transmission from place to place, renewing strength by the way, again to become dormant and lie in ambush, awaiting the return of congenial conditions for renewed activity.

The epidemic influences or constitution which some authors are wont to describe as conditions precedent to the activity of epidemic diseases, and which are believed to be periods of predisposing receptivity of specific poisons, are due in no small degree to the prevailing condition of school-rooms and their

congeners. As a rule, the older these conditions—the longer the period of time in which they have been tolerated—the more depressed the vital powers of their occupants, and the greater their predisposing receptivity. Besides, the depressed state of the organism under such conditions is not only predisposing to epidemic diseases, but the liability to and the danger of all diseases is thereby intensified, and vicissitudes of weather, which, under favorable circumstances may be encountered with impunity, under these depressing influences become dangerous perils; and, doubtless, much that is attributed to the season of the year supposed to be predisposing to scarlet fever, measles, whooping cough, diphtheria, and some other common affections of children, is due to the same cause. It is at any rate very remarkable that the beginning of the autumnal school term should be simultaneous with or speedily followed by the sickly term.

The paper chiefly consisted of reports on the conditions of schools in Brooklyn, New York, and other cities, showing that, with few exceptions, the pupils of public schools in almost all cities were confined to illy-ventilated rooms, and exposed to the poisonous influences of impure air, malaria from bad drainage, etc.

Hon. Dorman B. Eaton, of Washington, delivered a discourse on "Health Laws and the Interests and obligations of the State and National Governments pertaining to them."

He first alluded to the importance and breadth of the subject assigned to him. He would not intrude at all on the domain of the physician, but would discuss the best manner of carrying on the administration of the Health Office, or what laws are necessary for the advancement of the public health and the economical enforcement of good laws. It would be very unprofitable for him to attempt to figure out the vast amount which could be added to the capital of the country if all needless cases of sickness were cured. Let us consider what is meant by health laws generally. This effort for health reform is an attack on ignorance, which is obstructing the laws of nature. It will partake of the highest characteristics of civilization, and demands an advance in the science of healing. Additions must be made to the knowledge of medicine and the characters of contagious diseases. These cannot be accomplished without sacrifices in the cause of sanitary reform. One of the lessons which this association ought to teach is that the first condition to be regarded in constructing a human habitation is, that those who live in it can get fresh air, at least occasionally.

The next great obstacle to the progress of sanitary reform is party politics. The mercenary partisan spirit in villages and cities oppose health legislation more than anything else. This question of sanitary reform has to encounter all the meaner elements of human nature, and cannot be fully accomplished for generations. But at least great progress can be made, if the fight is vigorously prosecuted. Take as an illustration of its progress the city of New York. Since 1865, when the Metropolitan Board of Health was organized, the general health of the city has been improved wonderfully, and the death rate has been considerably lessened.

Hon. L. H. Steiner, M. D., of Maryland, was next introduced. His discourse was upon "Health, a Prerequisite of National Success in Peace and War." His address urged the subject of health upon the National Government as of paramount importance. Every hour of sickness is so much pecuniary loss to the nation. If all this could be computed, the value of good hygienic regulations could be understood. It is a terrible period in the history of a nation when its citizens commence to disregard the regulations of bodily health. In times of peace healthy minds are requisite for the advancement of the country in the path of civilization, and in times of war for the promotion of the physical and mental strength of contending armies. A legitimate deduction is, that it is incumbent upon the Government to enact laws regulating the sanitary condition of the cities and towns, and to spread such information before the people as will aid in securing the greatest possible prevention of disease.

Previous to the election of officers, Professor Gross offered the following :—

Whereas, It is the solemn duty of every civilized government to provide means for the safety, happiness, and preservation of the health and lives of its subjects; and

Whereas, A large number of the diseases incident to the human race are induced by causes inherent in our modes of living and by a want of knowledge of the laws of hygiene; therefore be it

Resolved, That a committee, consisting of a member of this association from each State and Territory of the Union, of which the president of the association shall be chairman, be appointed to petition Congress at its next session to institute a bureau of health, to be located at Washington city, with a branch at the seat of each State and Territorial government.

Resolved, That we hereby invite the earnest co-operation of the auxiliary branches of this association, and of all kindred bodies in the Union, in carrying out the objects of the foregoing resolution.

Professor Gross then made a speech in explanation of his reason for desiring the establishment of a national bureau of health, saying, in conclusion :—

“Have we not a right to ask for Government assistance in this matter? We have a Minister of War and a Minister of the Navy to keep the country in a condition ready to meet any foreign bloodhounds that may threaten our liberties, and deprive us of our territory. Why, then, should there not be a minister of health to see to our sanitary affairs; to enable us the better to cope with the enemies that beset us in our own dwellings and in those of our neighbors? Have we not a right, as dutiful citizens, to claim this much from the Government? If a man robs me of my goods the law takes cognizance of the offense and punishes the thief with fine and imprisonment; but if my neighbor poisons my well, my food, or the air I breathe, I can have no recourse unless the case is so palpably plain that it cannot be overlooked. Every man desires to live as long as possible, and not only so, but as happily as possible; but, owing to our ignorance, millions upon millions annually perish prematurely, simply because they do not know how to live and how to guard against the recurrence of diseases. So long as we are without well organized Government aid, so long will our people, from the lowest to the highest, pay the penalty of preventable diseases.”

Dr. Goodwin presented the following :—

Resolved, That this Association urge upon the Governors and Legislatures of each and every State in the Union the importance of enacting laws creating State Boards of Health, providing adequate measures for sanitary administration throughout each State.

[Other valuable papers on sanitary subjects were handed in by members of the Association, and will be given in future numbers of the SANITARY JOURNAL.]

TYPHOID FEVER AND SEWERS.—During the recent epidemic of typhoid fever at Lyons there occurred certain atmospheric changes of considerable collateral moment. The temperature rose suddenly, while the barometer experienced a heavy fall. Now, the falling of the barometer is always coincident with

an increased discharge of the airs dissolved in water. This may be witnessed at such periods in the increased escape of marsh gas, and is exemplified in the operation of the common hubble-bubble pipe for smoking, so named. The ill-washed gutters of the streets and quays of Lyons emitted the most noisome exhalations (*des puantes emanations.*) The quarter of the Bourse, the quays of the Rhone, both close to the public Lyceum, the Quai de Retz in especial, all abounding with dirt and stench, are successively implicated. Out of 900 boys at the Lyceum, 80 were laid up with typhoid fever; the institution, consequently, was closed, by the decision of the rector of the academy. This fever was characterized by evening exacerbations, and Dr. Bondet terms it, in certain cases, a regular abortive typhus. Without going into further details, it may be said that this epidemic of typhus, along with only too many of the same kind, points trumpet-tongued to the necessity of discontinuing the employment of sewers, which are no other than elongated cesspools, and the substitution of earth-closets along with the early removal of all animal and vegetable refuse, instead — *La France Medicale.*

OZONE.—Dr Lender ozonises chambers very successfully by means of a mixture of protoxide of maganese, or of the permanganate of potash, and oxalic acid. Two spoonfuls of this powder, moistened with twice the amount of water, and a trifle more of water every two hours, emits ozone freely. Gold and silver, however, excepted, it oxidizes metals rapidly. — *Archivio di Medicina Chirurgia ed Igiene.*

SANITARY AUTHORITY.—In a recent speech at Manchester, the British Premier, Mr. Disraeli, is reported to have said "I think public attention should be concentrated on sanitary legislation. I cannot impress upon you too strongly my conviction of the importance of the Legislature and Society uniting together in favour of these important results. After all, the first consideration of a minister should be the Health of the people." Surely, if this applies in England, how much more in Canada. In England, for many years past much extended and thoughtful legislation has been inaugurated bearing upon the enforcement of sanitary regulations, whilst here we yet await the laying of the very foundation upon which to rest any legal enactments to provide for the Sanitary Government of the country. Do we Canadians really and truly appreciate the great, the overwhelming importance of this subject? We find

the head of the British Government openly saying with all the emphasis of which he is capable that public attention should be *concentrated* on sanitary legislation. We should be only too glad to hear such words coming from the lips of some leading member of our present Executive at Ottawa. Nothing less than this should satisfy the Canadian public, they should not rest content simply with insisting that sanitary matters should receive a certain share of attention at the next session of our Parliament, but by *concentrating* their attention upon these matters and constantly keeping them agitated through the press and by every other available means, they would ultimately succeed in forcing measures relating to the public health into that prominence which they unquestionably deserve. * *
—*Canada Medical and Surgical Journal.*

ON DIPHTHERIA.

[The following interesting papers by Dr. Smith and Dr. Harris, upon the above subject were read before the Public Health Association of New York, in December last, when it met to take into consideration the prevalence of diphtheria,—from the *Sanitarian*. The third article, from the *Medical Times and Gazette*, London, consists of a series of valuable conclusions drawn from a comparison of Reports upon an epidemic of diphtheria at Milan, Italy.—Ed.]

THE CAUSES AND NATURE OF DIPHTHERIA, WITH A REVIEW OF THE BACTERIAN THEORY, BY J. LEWIS SMITH, M.D.

Dr. Smith spoke substantially as follows: Since the death of Bretonneau, some twenty-five years ago, it has been abundantly proved that diphtheria is communicable otherwise than by inoculation, for the result of numerous chemical and microscopic investigations has been to nearly demonstrate that the disease is contagious by contact with the patient, through exhalations from the surface and through his breath. And it is thought that the cause of diphtheria has been found in the existence upon the diseased parts in the diphtheritic cases, of small vegetable parasites, which are endowed with life and motion, and which have been designated *bacteria*. These parasites increase in number as the disease increases in intensity,

and if diphtheritic inflammation attacks any surface which is covered by the parasites, which cause certain other diseases, such as catarrh, the parasites diminish and disappear, as though deprived of the required nutriment. And on the other hand, when diphtheria disappears, other vegetable forms may succeed. The grayish-white spots which appear upon inflamed surfaces at the beginning of diphtheria, are entirely composed of these bacteria, which have come in contact with the mucous membrane, and have adhered to it, and which unless prevented, will multiply rapidly, and then by burrowing through the tissues, will infect the whole system. The reason why diphtheria primarily and chiefly affects the surfaces of the nose and throat is that the air which contains the germs of the bacteria constantly passes over these surfaces. The important conclusion to be deduced from these facts is that diphtheria is entirely local in its commencement, and is amenable to local measures. This bacterian theory, thus established by microscopical investigations, receives some support in clinical observations from the fact that diphtheria prevails most in localities which are favorable to the development of low forms of animal and vegetable life, such as filthy and crowded apartments, along streets and alleys, and along low grounds where vegetable and animal refuse collects. Additional confirmation of the bacterian theory was found in the fact that diphtheria begins in one spot, and then may be easily treated and cured, and that it is only in a subsequent stage that it infects the whole system, and becomes a generally dangerous disease. But the speaker thought there was another factor in the propagation of diphtheria, which the advocates of the bacterian system had too much overlooked, namely, a predisposing condition of the system. This, he thought, was shown by the fact that sometimes bacteria may be found in the air of localities where diphtheria has not occurred, and in such numbers as to force the belief that they had frequently passed over the fauces in the inspired air. Bacteria are sometimes, too, found in the mouth in perfectly well persons, and sometimes, when breathed, they cause no inflammation in the lungs. These considerations, and other minor ones noticed by the speaker in clinical experience, justified, he thought, the opinion that diphtheria is, in certain cases, a constitutional malady in its circumstances, while in other cases, if not in most, it is primarily local, and only subsequently constitutional. In conclusion the speaker said that diphtheria had scarcely been absent from New York for a single season during the last ten or fifteen years; the

primary form predominating during diphtheritic epidemics, and the secondary form in the intervals and during epidemics of scarlet fever and measles, it being a peculiarity of diphtheria that instead of being incompatible with other morbid processes it is likely to engraft itself upon them. He thought the disease in question might fairly be called epidemic in this city. Diphtheritic inflammation attacks by preference such inflamed surfaces as are deprived of their covering of skin, and in this he found an explanation of the frequent complication of scarlatina and measles by diphtheria. For in those eruptive diseases an inflammation is already established upon the fauces which affords a nest in which the bacteria, or diphtheritic virus, might lodge and develop. Then, alluding to the anti-hygienic conditions which produce diphtheria, the speaker said that when it appeared in New York in 1857 and 1858, after an absence of more than fifty years, some of the first and most severe cases seen by himself occurred in the upper part of the city, along the old water-courses, where, in consequence of street grading, water was stagnant, and impregnated with decaying animal and vegetable matter. In fifteen years' treatment of diphtheria, the speaker said, he had not observed an instance in which it appeared to be communicated from house to house by the clothing, as is sometimes the case with scarlet fever and measles. When it spreads from house to house, or even from room to room in the same house, it is almost always carried by the visits of persons having diphtheritic inflammation. The area of contagiousness of diphtheria is therefore confined to the room in which the patient resides.

FACTS IN THE HISTORY OF DIPHTHERIA IN THIS CITY AND
COUNTRY. BY ELISHA HARRIS, M.D.

That diphtheria is not a new disease, and that its recent modes of prevalence are not new or in any manner unusual, is clearly proved by the medical writings of the best observers of disease. While in Europe the records of this malady extend back to the very dawning of scientific medicine, and through the last four centuries its fatal prevalence has been vividly described under various names, and its persistence and fatality have been entered in the historical records of numerous places over a vast range, from the Mediterranean to the North Sea, the history of diphtheria as the "putrid sore throat," the "malignant angina," the "angina suffocativa" has been written in New York and various places in America from early colonial times.

As it is not important to our present instruction that we should search and rewrite the old records, we may as well proceed at once to the experience of the present generation of medical men, who have been enabled to describe this malady under the appellation we now give to it—diphtheria. Dr. Craik's description of the sudden and fatal instance of this disorder in the case of Gen. Washington in 1798; the account given by Dr. Jacob Ogden of the prevalence of it in the vicinity of New York in the middle decades of the last century, and Dr. Samuel Bard's recitals of his study of the "suffocative angina," as it prevailed in the City and Colony of New York in the sixth decade of that century—now upward of 100 years ago—will always be referred to with quite as great satisfaction as respects accuracy and clearness of definition as we can derive from the descriptions of "putrid sore throat," the "malignant cynanche," or the "black tongue," of which alarming descriptions and alarming examples occurred in many places some thirty years ago.

The first fatal case of diphtheria, certified and registered by this name in the city of New York, occurred in the practice of Dr. William Maxwell, a most trustworthy diagnostician, on the 20th of February, 1850. The second and third cases occurred on the 25th, the fourth was registered nearly a fortnight later, and before the end of the year 53 deaths by this disease had been recorded in the city. But this disease had actually been prevailing, in a mild way, and was recognized all through the summer and autumn of 1858, and the winter of 1859. Dr. Abraham Jacobi had found that five of the forty-five patients suffering from a peculiar throat affection, etc., at the German Dispensary, in the children's department, were cases of diphtheria, and before the end of 1850, there had been 112 cases recognized at that institution, and during the year 1859, there were eighty-eight more of these cases.

Dr. Whittlesey, on Randall's Island, had a few cases among his 500 nursery children during that time, and recalled a few instances of this malady which had supervened upon measles, and those were instances of diphtheritic ophthalmia. The supervening disease killed the patients, but they appear in mortality returns as cases of measles.

This city and its vicinity suffered thus lightly until near the end of 1859, when " " or nearly all, family and dispensary

[There appears to be some error in these figures as regards dates.—ED. SAN. JOURNAL.]

physicians noticed and commented upon the presence of diphtheritic symptoms, and the specks and patches of the characteristic deposits in the mouth and fauces; yet, up to the close of 1860, the certified causes of death continued to exhibit evidences of hesitation and much confusion in the diagnosis of this disease. Croup, scarlatinous angina, and numerous other kinds of angina were certified by physicians who had not become familiar with this disease or posted themselves in regard to its history and characteristics. But in January, 1860, diphtheria became very prevalent, and was widely distributed over the city, and fourteen deaths from it were registered in the Bureau of Vital Statistics. The malady was not only epidemic, but exceedingly malignant in certain localities and particular dwellings. The abstract of the mortality which has occurred from this disease presents ample proof that from the beginning of the year 1860 to the end of 1864 diphtheria had become a dangerous enemy to life in our city.

During the two years, 1858-'59, when this disease was gaining its new foothold in the city of New York, it had more quickly become epidemic in numerous smaller cities. It appeared in the city of Albany early in the spring of 1858, and in that half of the city which is situated south of State street it almost decimated the children between two and seven years of age. There were upward of 2,000 cases of the disease recognized in the whole city during the first ten months of its prevalence, and there were in that period 179 deaths from it recorded.

During all that period this malady made no mark in the city of Troy—only seven miles distant, and virtually a suburb—in which the local and domestic conditions of the population seemed far less propitious than those in Albany. But the infection had not yet become planted there. Its prevalence had almost ceased in the former before it commenced in the latter city.

During the years 1860 and 1861, diphtheria prevailed as a local epidemic—often only as a neighbourhood and house epidemic—in hundreds of populous towns, from New York to Nebraska, and from Maine to Alabama. Regarded, usually, as an epidemic that depended upon atmospheric causes—the doctrine of fatalism too often—this malady struck down one and another of the noblest physicians, and hundreds upon hundreds of child visitors by its infectious quality—its communicable poison—in the sick-room. The death of the esteemed Dr. Frick, in Baltimore, who was brought down only

twenty-four hours after a special exposure to a malignant case, and died upon the seventh day after that exposure, showed to the profession in all Maryland that the disease must be regarded and sanitarily treated as being, in a certain and most important way, infectious. But until the wide-spread suffering from it in 1860, 1861 and 1862, had nearly ceased, there was but little heed given to the essential sanitary duties, the local circumstances, and prophylactic measures by which this destroyer of life may be held in check.

The actual number of deaths charged to this disease in New York in the year 1874, as registered at this date, is 1,665; 514 in excess of the number in 1873.

CONCLUSION DRAWN FROM REPORTS UPON AN EPIDEMIC AT MILAN.

1. All the practitioners of the province who have had to treat patients suffering from diphtheria are of opinion that the disease is transmissible and contagious. 2. The disease, unchanged in its characteristic features, becomes alike developed and prevails at all seasons and in all climates, in localities which are dry, with pure air, as in those which are humid, and poisoned by mephitic and palustral miasmata. 3. While it is not exclusively confined to any epoch of life, it has a predilection for early age—*i.e.*, from infants at the breast to children below ten years old. 4. The mortality is largest below five years of age, and goes on decreasing with age and with the decreasing numbers of those attacked. 5. The sexes are alike in liability to the disease and the mortality that attends it. 6. Rigorously speaking, the disease assails in the same proportion individuals belonging to families in easy circumstances and those who are poor; but the former furnish a smaller mortality. 7. When the disease appears in a family or in a house where there are many children, a large portion of these become successively attacked. 8. Although the disease has in many cases presented itself to practitioners with the symptoms of the angina developed, and in others the primary symptoms, owing to their mildness or to the ignorance of parents, have been overlooked, yet in most cases symptoms of general disturbance have been recognized, and have preceded by twenty-four or thirty-six hours, or even by four days, the appearance of the diphtheritic deposit. 9. Death has usually been rapid, taking place in the majority of cases not later than the third day, and accompanied with the symptoms of carbonic poisoning. Deaths have, however, occurred on the seventh,

tenth, or even the twenty-eighth day, and then with symptoms of albuminous nephritis, paralysis, etc. 10. The mean duration of the disease, when the issue has been fortunate, has usually been from ten to fifteen days. In a few cases which have been attended with consecutive phenomena, months have sometimes elapsed before the cure has been completed. 11. No curative treatment, which can be regarded as at all constant, has as yet been discovered. 12. The measures most to be relied upon are prophylactic, and these are to be sought in the careful administration of public hygienic measures. These, the above journal states, are, in the Milanese province, in a woful state of backwardness.

PUBLIC HEALTH AND LEGISLATION.—It has been said that “the health of the people of any country should have the first and highest claim on the Government.” Unfortunately in this country sanitary legislation is not even in an embryonic state. We are absolutely without the first principles of sanitary legislation. In fact, we are in as bad a condition in that respect as were the people of England during the reign of Henry VIII. In those times when disease and pestilence did occur, it was looked upon as an evidence of Divine wrath, which drove the superstitious to their knees, instead of stimulating them to ascertain the cause of the plague, with a view to its removal.—*Canada Med. and Surg. Journal.*

ON NICOTINE.—Nicotine is the neutral principle of tobacco, and is a vascular poison above all, but also a cardiac poison. If a small dose of nicotine be injected into an animal we notice first a retardation of the heart's action, and next, augmented pressure in the vessels. If the animal be opened, the vessels are found contracted. There is, in a word, enlargement of the vaso-motor nerves, and of the vessels, and also tetanic rigidity. When there is a strong dose of nicotine, we notice the inverse; the heart's action is notably increased, and there is complete relaxation of the vessels, depending on fatigue of the muscles of the vessels; the heart's action becomes accelerated, because then nicotine acts like atropine, by paralyzing some part of the suspending system. Ordinary smokers have palpitations, or slow pulse sometimes, 48 pulses per minute, with intermittences; extravagant smokers speak of palpitations with rapid pulse, 130, 140, 150 pulsations per minute.—*Medical and Surgical Times.*

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DEVOTED TO PUBLIC HEALTH.

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SANITARY LEGISLATION—ITS IMPORTANCE.

It is a matter of deep regret and disappointment to those interested in Sanitary Reform that "through the difficulty of reconciling the powers of the Local and General Governments," the Government of the Dominion has been prevented carrying out, in the way of establishing a Bureau of Sanitary Statistics, what it desired to carry out. So, in effect, said Mr. McKenzie in the House at Ottawa, a few days ago, in reply to Dr. Brouse's enquiry regarding the intention of the Government upon this question. While he had not given the matter up, Mr. McKenzie added, "he had been compelled to postpone it, for this session at least." With others, we had hoped, after the action taken in the House last spring, that *something* would be done this session toward placing the country in a better sanitary condition; that at least a foundation would be laid for a complete sanitary organization. In whom, we may ask, is vested the power to remove the difficulty spoken of by Mr. McKenzie? That of reconciling the powers of the General and Local Governments. Is there not to be an effort made at once to remove it? Or how long is it to continue to be an obstacle in the way?

We have long claimed that this matter of Sanitary Legislation is not second to any other. And that measures for the improvement of public health are not second to any with which the government of a country can deal, does not admit of refutation. Measures even for the preservation of peace in

the country are not of greater importance ; and sanitary progress is certainly most intimately connected with the general and pecuniary prosperity of the country. The most sanguinary war would hardly cause so many deaths even in the same period of time as result from what may be regarded as preventable causes of disease and death. In Toronto, according to the returns of the three places of burial, the number of deaths during the year 1874 is 1818. Estimating the number of inhabitants at 60,000, the rate of mortality for the year was over 30 per 1000. We have no particular reason to suppose the sanitary condition of Toronto is worse than that of other cities of the Dominion, or even than the smaller towns and country places ; for in these latter the causes of disease and early death, such as accumulations of filth, defective drainage, badly ventilated and over-heated houses, improper food, and over-work and exposure, are exceedingly numerous indeed. We may therefore reasonably place the rate of mortality for the year at 30 per 1000 for the entire Dominion. This shows, in a population of 4,000,000, an aggregate of 120,000 deaths.

Mr. Simon, Medical Officer of the Local Government Board, Great Britain, than whom we have no better authority, says, " that the deaths which occur in this country (Eng.) are fully a third more numerous than they would be if our existing knowledge of the chief causes of disease were reasonably well applied throughout the country." This estimate of Mr. Simon's is based upon facts, and is not imaginary or chimerical. Now if his remarks are true of England, where much time and labor has already been bestowed upon sanitary matters, they are applicable and with much greater force to Canada, where such matters are yet but in actual foetal existence. In England and other places where much attention has been given to the improvement of the public health, there the death rate has been greatly and directly reduced. The mortality in the city of London has been reduced from 42 per 1000 when the population was only 530,000, when after a shower the " swelling kennels " flowed with reeking filth, when

" Filths of all hues and odors seemed to tell
What streets they sailed from by their sight or smell."

to 22 per 1000 at the present time, with a population of 3,000,000. We believe therefore that in this country a much larger proportion of the deaths than one-third are the result of preventable or removable causes. The climate of Canada is rather favorable than otherwise to longevity; this appears to be very generally admitted. Indeed with proper sanitary administration there could be no reason why it should not be conducive to health, vigor, and long life. And if, as an example, we take Toronto, which will we believe compare favourably with the average of places in Canada in regard to its sanitary condition, in which the rate of mortality was much greater than in New York, where last year it was 26.62 per 1000, or Buffalo, where it was 21.50, or Chicago, where it was only 10.5 per 1000, it must be admitted that the death rate of Canada is double what it would be if even our *existing* knowledge of the laws of health were properly applied. But if we even compute the number of preventable deaths in each year at only one-third of the whole number of deaths, estimating these at 120,000, we have in Canada 40,000 preventable deaths per annum. Perhaps one-fourth of these would be the result of social and individual causes, which sanitary legislation could not reach; and that leaves 30,000 deaths in the Dominion every year which might soon be prevented if we had statesmen who would at once grapple with these destroyers of health and life,—who would enact laws by means of which they might be removed.

Leaving out of consideration the utter misery and desolation which death almost always brings, especially when premature, the anguish and tears of widows and orphans, and of those bereft of their children, 30,000 lives saved are at least for the time being worth as much to the country as 30,000 gained by immigration. And then again, the average duration of life would be increased 25 per cent, through sanitary legislation. It is not an easy matter to place a money value upon the saving of human life, but we have before us an estimate in which it is represented that the saving of 1.404 lives by reducing the mortality from 27 per 1000 to 22 per 1000 in a

town with a population of 270,000, would result in the saving of £88,303 stg. At the same rate, the saving of 30,000 lives in this Dominion would represent a saving of not very far short of \$10,000,000.

Thus much then as regards the gain in the saving of life. Now as to the cost of disease.

Not only is almost every death preceded by a longer or shorter period of sickness, but each represents a larger or smaller number of cases of sickness not ending in death; though frequently of far reaching ill effects upon life. To say nothing about the suffering, the anxiety and trouble, the cost of disease in dollars and cents is great. Loss of time, nursing, medicine, and medical attendance, count up fast in this way. At the Sheffield (Eng.) School of Art, Dr. Hime recently delivered a lecture on the "Value of Health." He assumed the cost of a sick man to be 2s stg. per day. This appears to be a moderate estimate; most cases of sickness in Canada, we believe, cost more than this. In Sheffield, the average number of sick days per head of population was from 19 to 20. This would probably be a high estimate for Canada; but if we put it at 15 sick days per head, at 50 cents per day, and take one-third of the sickness as arising from preventable causes, we find the cost of preventable disease in Canada to be about \$10,000,000. Loss of time by the sick would probably represent another \$10,000,000.

The above are not fanciful figures. Mr. Simon's estimate is based upon facts. In twenty-five towns examined by Dr. Buchanan a few years ago, it was found, quoting from the first number of the *SANITARY JOURNAL*, that "in some of these towns (through sanitary administration) the general death-rate had been lowered over 20 per cent.; while in nine of them, the number of deaths from enteric or typhoid fever was diminished over 50 per cent., and in ten others, from 33 to 50 per cent." Who then shall say the above is over-drawn? Who shall say there is one other matter to which a Government should first direct its attention? Mr. Disraeli, the British Premier, recently in a speech at Manchester, said, "the first consideration

of a Minister should be the health of the people." Heretofore, in Canada, it appears to have been not only the last consideration, but has hardly received any consideration whatever.

But Ministers are not alone responsible. Pressure must be brought to bear by the public upon our legislators. At the late meeting of the American Public Health Association, held at Philadelphia, it was resolved that a committee be appointed to petition Congress at its next session to institute a Bureau of Health. We do not see that it is especially the duty of medical men to take the lead in this matter, but, as we have before observed, we "should be glad to find the next effort on the part of the profession directed toward sanitary enactments." Dr. Brouse is certainly entitled to the thanks of the people of Ontario for the action he has taken in the matter. Dr. Paquet, of Berthier Q., has also been active in the same direction. We trust they will receive all possible encouragement and assistance from the public in their efforts.

THE TYPHOID EPIDEMIC AT OVER DARWEN.—It is now said the official report of this terrible outbreak of fever will shortly be made public. Over Darwen, (Eng.) contains about 25,000 inhabitants, and no less than 2,035 of these have been attacked with typhoid fever within a very short period, and 104 have died. Inspectors from the Local Government Board have been investigating the cause, and although it appeared at first that the water supply, which was brought from a distant source in covered channels, was unpolluted; it is now learned apparently, after more minute investigation, that the first case of typhoid in the neighborhood occurred in a house at a considerable distance from the town, and the drain of the water closet into which the excreta of this first patient passed, emptied into a field through which passed the water-main conveying the water supply of most of the inhabitants. Although special precautions had been taken at the point of supposed contact of the water pipe with the drain, a leak has been discovered which permitted the contents of the drain to pass freely into the water pipe; and thus the typhoid poison mingled with

the water supply of the town. The town, however, must have been in a dreadfully insanitary condition, and proved the very best soil for the multiplication and spread of the contagium. Mr. Moore, a clergyman of the place, says the people "sit amid, walk in, and breathe their own excreta," and he might have added, drink; and the truth of his statement is fully confirmed by the Inspectors.

TRICHINIASIS.—An extensive epidemic of trichiniasis, traceable to infected pork, has recently prevailed in Linden, a suburb of Hanover. About 400 individuals had been attacked at last accounts, and of 70 cases treated at the hospital, 21 terminated fatally.

SEWAGE UTILIZATION.—According to *La Sante Publique*, Nov., 1874. A gravelly plain of four thousand acres, the peninsula of Gennevilliers, bounded by the Seine, hitherto a dry, barren, and almost uncultivated waste, has been converted into luxuriant fields and kitchen gardens by sewage irrigation. The city of Paris now furnishes daily to this sandy peninsula, by means of powerful engines, eighty thousand cubic metres of sewage; which would otherwise pollute the waters of the Seine. The annual profit in farming in this plain has thus been increased from 250 to 2,000 francs per acre. If all sewage and excrement, not only of cities, but of towns, villages, and even farms could be thus utilized upon suitable soil, instead of being permitted to accumulate or pollute rivers and water-courses and give rise to epidemics, the material gain in diminished disease and lower death-rate would be immense.

QUACK MEDICINES.—"One of the most common sources of astonishment to the educated foreigner visiting this country," writes the Editor of the *Boston Medical and Surgical Journal*. "of mortification to the profession and of injury to the community, is the extensive and often indecent advertisement of quack medicines." And he quaintly adds, "we know for a fact that several of these nostrums convey great satisfaction to the strict teetotalers of New England." These remarks are pro-

bably quite as applicable to Canada as to the United States. It is simply disgraceful that such a state of things is permitted. The harm done to all classes of the community by the traffic in the patent medicines is beyond computation. Temptations to make use of them, even by those who do not require any medicine, are flooding the country, chiefly in the form of deceptive and even indecent almanacs. This is surely a matter that demands legislation; and we hope the attention of some of our legislators may be turned toward it, and that they may devise some means by which the constantly increasing traffic in the vile nostrums may be suppressed.

INSULATION OF BEDS.—An interesting paper on the insulation of beds, as, for example, by placing the legs of the bedstead in four glass tumblers, was read before the Central Ohio Medical Society, and published in a late number of the *Philadelphia Med. & Surg. Reporter*. The writer, Dr. Wagenhals, gave the history of a large number of cases of rheumatism, acute and chronic, occurring in his own practice, in which most marked benefit appeared to be derived, almost immediately, by the insulation, and he asks, are they “specimens of the wonderful power the mind has over the body, or does it depend upon changing the electric state of the body?” It is certainly a matter worthy of investigation. It might prove at least a valuable prophylactic for those who are the subjects of attacks, more or less periodical, of rheumatism. It is well known that neuralgic, rheumatic and other pains are brought on or aggravated by certain conditions of the air, and experiments have apparently shown very clearly that attacks of epilepsy and mania correspond, in many instances, with changes in the electrical and other conditions of the atmosphere. It is not surprising that man, the most exalted and complex of all organic structures, should be thus so susceptible to such influences, when it is known that even plants predict the approach of storms with wonderful precision. The *Danbury News* man was, therefore, somewhat scientific while he probably only intended to be funny, when he dedicated his almanac to that distinguished weather predictor the inflammatory rheumatism.

NEW JOURNAL—LE GUIDE SANITAIRE.—This is the name of a new journal of practical hygiene, published in French, in Montreal: Tardiff & Turcotte, editors and proprietors. We have received the first number, which contains articles of vital importance. We wish our *collaborateur* in the field the success which it merits, and believe it will be the means of doing much good.

SANITARY MATTERS IN QUEBEC.—A Public Health Bill for the Province of Quebec has been brought before the Local Legislature of that Province, but has been deferred to the next session. Certain amendments to the city charter of Montreal, giving the Health Officer much more power, have passed the Committee on Private Bills.

The Government of the Province have promised an allocation to establish a Bureau of Vaccination in Montreal, which will supply fresh, reliable lymph. All medical men obtaining lymph from it will be required to keep a register of all his vaccinated cases, and to report them to the Bureau.

AT THREE RIVERS small pox appears to be on the increase, and it is deemed advisable to establish a Sanitary Board. A building has been secured a short distance from the town for a small pox hospital.

CAUSE OF SUDDEN DEATH.—Many cases of death more or less sudden are reported throughout the country, caused chiefly, we are told, by congestion of the lungs. The late severely cold weather is blamed for this. But the cold is only the exciting cause, and we must look further for a primary or *pre-disposing* cause. We believe this may be found chiefly in the contracted state of the lungs of many persons from want of active exercise. It is well known that gymnastic exercises or "training" greatly increases the capacity of the lungs, and it may naturally be inferred that inaction will give rise to the opposite condition; indeed there is no doubt about this. Where respiration is not full and vigorous, the power of the lungs and of the entire organism are below par, and when, upon a little extra exertion in the cold, condensed air, more blood is forced into the lungs, both by the exercise and the condensed, and possibly highly ozonized atmosphere, these organs are unable to send on the current of blood, and hence the congestion.

WORTHY OF CONSIDERATION.—It has been suggested to us by the Medical Officer of the Health Department, Montreal, that that city and Toronto each send a deputation of two or three persons to meet in Ottawa during the present session of Parliament, in the interest of the Public Health question. The public, however, do not seem to be alive to its own interest in matters of Health.

EARTH TO EARTH.—The well known artist, Mr. Seymour Haden, has recently written a letter to the *London Times*, on "Earth to Earth," in which he powerfully and eloquently advocates the burial of the dead in the earth, in proper soil, instead of resorting to the practice of cremation, as recommended last year by Sir Henry Thompson. Below, we give six propositions which he sets out for consideration, and we regret that space will not permit copious extracts from his indisputable truths.

"1. That the natural destination of all organized bodies that have lived, and that die, on the earth's surface, is the earth.

"2. That the evils which they (the Cremationists) would have us believe to be inseparable from the principle of interment are independent of that principle, and wholly of our own creation.

"3. That the source of these evils is to be found—not in the burial of the dead, but in the unreasoning sentiment which prompts us to keep them unburied as long as possible, and then to bury them in such a way that the earth can have no access to them.

"4. That the burial of the body supposes its resolution by the direct agency of the earth to which we commit it, and, again, that the earth is fully competent to effect that resolution.

"5. That to seek to prevent this beneficent agency by enclosing the dead in hermetically sealed coffins, brick graves, and vaults, is in the highest degree unphilosophical, since it does but engage us in a vain resistance to an inevitable dispensation, and since it has led us to accumulate in our midst a vast store of human remains in every stage and condition of decay.

"6. That the remedy for such evils is not in cremation, but in a sensible recognition of, and a timely submission to, a well-defined law of nature, and in legislative action to enforce the provisions of that law."

"NEW JOURNAL.—We welcome to our list of exchanges the SANITARY JOURNAL, published at Toronto, Ontario, and edited by Edward Playter, M.D. The JOURNAL presents a very neat appearance, its selections are well made, and its editorials exhibit an ability competent to the consideration of this important branch of science. We wish the new comer a long and vigorous life."—*Peninsular Journal of Medicine, Detroit.*

"THE SANITARY JOURNAL. Edward Playter, M.D., Editor, Toronto.

We have received several numbers of this new journal. * * It takes the right positions on the temperance and tobacco questions, as well as general reform. We wish for our contemporary a fair share of success, and trust that the people of Canada are sufficiently awake to their interests to give it the support which it well deserves."—*Health Reformer.*