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CANADA HEALTH JOURNAL

A Monthly Review and Record of
SANITARY PROGRESS

— EDITED BY —
EDWARD PLAYTER, M.D.

Public Health and National Strength and Wealth.

For Contents see next page.

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VOL. XIII.

AUGUST, 1891.

No. 8.

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A Monthly Record of sanitary Progress.

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SOME OF THE DANGERS OF EXHIBITION TIMES.

THE "Exhibition" season is at hand, when thousands of people will flock to the cities in which the various exhibitions are held, sojourn there for a few days and then flit back to their homes again. This sort of thing appears to have become a necessary part of human existence, and we certainly should not like to write anything which would detract from the pleasures annually derived by the masses of the population from visiting the exhibitions. But the amount of disease of one kind or another which is disseminated or scattered about by the flocking and flitting of these thousands of people is probably not inconsiderable, but worth our attention, with the view of preventing it. Many special cases of infectious disease have been reported in this Journal from time to time in which the infections from which they originated had been carried by clothing from distant places, thus making new centres of disease, and sometimes with fatal results. Such cases not infrequently occur, as everybody knows. True, the recent regulations which require cases of diseases of this class to be reported to the health authorities, in order that isolation, &c., may be practiced, have lessened the danger from spreading in this way. But these regulations are but imperfectly carried out, and with the incomplete half alive provisions for stamping out outbreaks of infectious diseases—measles, diphtheria, scarlet and typhoid fevers, &c., these exist more commonly throughout the country districts than in cities, and it seems hardly possible that infective germs of the same will not, in many instances, be conveyed to the cities visited. In the cities there is receptive soil on every hand, both

within human bodies and outside of them, for the development and multiplication of the conveyed germs. Unless a large number of cases of disease were to develop however in this way and increase the mortality to a marked degree, public attention would not be turned to this special source of outbreak of disease, and therefore many cases might annually occur which would be known of only by those directly affected. Close observation by the health officials of the cities, we have no doubt, would reveal a number of new outbreaks of infection from a rural source during the few weeks following the exhibitions, which could be accounted for in the way above indicated. Again, on the other hand, such infections are quite as likely, if not more so, to be carried in like manner from the cities to the rural districts. People from the country visiting the city usually lodge in strange places. Sometimes one may be placed in a room in which there has been a case of infectious disease, and which has not been properly disinfected, and the owner of which is either ignorant or disregarding of the serious consequences which might befall another from lodging in the room. And so scarlet fever or measles, or something worse, may be carried back to some innocent children in the country. We simply desire, as it is the duty of this JOURNAL, to make known the danger and to suggest forethought and care on the part of all concerned, both in country and town. Both urban and rural health officers, and the public too, would do well to be particularly on their guard for many weeks after Exhibition time, as well as a little before and during that time.

ON THE CAUSES OF THE INCREASE OF INSANITY—HEREDITY.

THE manifest increase of insanity constitutes one of the strongest incentives to public health work, or preventive effort, more especially in effort toward EDUCATING the public, as distinct from COERCIVE sanitary proceedings. To prevent disease,—diseased bodily conditions, is unquestionably to prevent insanity, whether hereditary or otherwise. That lunacy is generally on the increase, seems to be certain, as the number of deaths from suicide certainly is. In the United States, as we have elsewhere noted, in the 20 years from 1860 to 1880, the number of insane persons in the asylum increased 250 per cent. among a fixed number of the native population.

The causes of insanity, or of the increase of it, we will consider under two heads:—hereditary and acquired. We will first notice some conditions of heredity, and later, the causes of these. According to the late and widely known Dr. R. P. Howard of Montreal, in an address delivered a few years ago on means for preventing the increase of insanity, "No man can go mad from any amount of mental suffering, unless he has in him an insane neurosis,—a pre-disposition, whether hereditary or otherwise, to go mad." Referring to hereditary influence, that through the infantile population. Dr. Howard said: 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...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.

Then again we have, as Dr. Howard gives it, 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 known by his moral crookedness and egotism. It is such men that we find sharpers, swindlers, gamblers, etc., 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 mean men;... generally too clever to be caught in the meshes of the law; men who as a rule are the curses of society. When the storm comes on them, not having any strong moral faculties to fall back upon, they break down and become insane.

Yet again, in another class of children "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 generally ends in becoming a maniac.

Another class 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 of any kind 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.... The last order of classification is the congenital idiot. He is generally, but not always, the offspring of imbeciles.

From the foregoing facts Dr. Howard

continues, "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....

IS INSANITY INCREASING IN CANADA.

THE question, "is insanity increasing in this part of the country," is being discussed in Ottawa, and in connection with necessary accommodation for the insane in and about the capital where an increased number of these afflicted people are confined in the county jail, a terrible state of affairs. The Evening Journal has interviewed a number of the practicing physicians of the city, soliciting their several opinions on the question. These opinions, as one would naturally expect, as they could not possibly have been based, individually, on much experience with the insane—on fact, differed widely, and are therefore of but very little if any value. We would note here however that it is not easy to understand how in the present state of knowledge on this subject, any physician could give as his opinion, as one is reported to have done, that heredity is not one of the chief causes of insanity. It is the hereditary factor in the causation of mental aberration which perhaps more than any other, associates insanity so directly with the subject of public health, especially the educational part of sanitary proceedings, and makes the affliction preventable. We will not hesitate to record our broad opinion as being just about in accordance with that, as reported in the Evening Journal, of Dr. A. F. Rogers, that "insanity is on the increase the world over," and that the two chief causes are "(1) heredity and (2) the modern high pressure methods of living"—undue excitement, erratic habits, as of diet, drink; &c.

The late eminent and lamented Dr. R. P. Howard of Montreal, it may be here noted, sometime before his death, in speaking on the subject of preventing "the increase of insanity," said: "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." Dr. Rogers is reported to have said: "Where it would all end he could not begin to say." Some time ago a magistrate in Dorsetshire, England, speaking of the increase of insanity there, said: "If lunacy continued to increase as at present, the insane would be in the majority." It need hardly be said that, before this alarming

point could be reached some more efficient means of prevention would be put into practice which would turn the current.

Gleanings from the leading Medical Journals of the world indicate that in Europe and on the continent insanity is generally on the increase, although a few think this is more apparent than real. Statistics as to the increasing number of inmates in asylums for the insane in all civilized countries, do not it is true prove clearly that there is an actual increase of lunacy out of proportion to the population, but they afford strong corroborative evidence of this contention. According to the United States Census Reports, in 1860 there were in that country but about 18,000 insane persons natives of the States. In 1870 there were 26,000; and in 1880 65,000: In 1860 there were 4 insane native persons in every 6,000 inhabitants; in 1870 there were 5 in the same number of inhabitants; and in 1880, ten,—an increase in 20 years of about 250 per cent. Statistics of suicide are more reliable, being more definite, than those of insanity, and, as we noted last month, according to a recent number of the Lancet, "the present century has witnessed a steadily increasing proclivity to suicide," and that suicide is relatively more frequent among the civilized and cultured." As suicide is closely allied to insanity, it may be fairly assumed that increase in the former clearly indicates increase in the latter. If insanity is everywhere increasing, what is there associated with this section of the country that would make it an exception? The number of cases brought to notice in the capital has it appears largely augmented and apparently out of proportion to the population, in recent years. In the face of this fact, and with even an apparent disproportionate increase generally, in other places, it is too clear that there is an actual increase of insanity in this part of the country, and therefore an absolute necessity for asylum accommodation here. Possibly if a near relative of some one of those in legislative power in Ontario were to be "committed" to the common jail here as a lunatic such accommodation would soon be forth coming.

ON HUNGER, APPETITE AND TASTE.

IT is universally conceded by the medical profession everywhere that errors in diet, and more especially over-eating, cause, directly and indirectly, a very large proportion of the disease which so afflict mankind. What is the remedy? What are the preventive means for this large proportion of disease? A better general knowledge respecting the relations of hunger, appetite and taste to the functions of the body naturally suggests itself as one remedy which should, and doubtless would, prevent a great deal of sickness. Hence these lines.

Two special causes may be assigned for over eating: One, a general impression that the more one eats the stronger one will be; the other, the gratification of the appetite, or the sense of taste—the pleasure of eating gratifying food—eating food that is pleasing to the palate. Now at any certain or given time, the human organism is in a condition to properly digest, absorb and prepare as new nutriment, for making new blood, only a certain necessary amount of food, an amount in accordance with the needs and demands of the system, and this amount precisely is suggested by a peculiar sensation or feeling called hunger. Hunger is caused by an excitation of sensory nerves by various parts and organs more or less exhausted for lack of nourishment supplied to them. The digestive and other nutrient organs will only properly utilize the amount suggested by the sensation of hunger, and not what one chooses to gratify the palate with and swallow into the ever accommodating but greatly abused stomach. Plainly, therefore, it is not what one habitually eats, but it is what one has a natural hungry desire for, and hence can properly digest and transform into chyle for renewing the blood supply, that gives the strength. All that one eats beyond the demands of natural hunger becomes a burden upon the organism, which it must labor under and strive to get rid of. The excess of food interferes with the natural healthy functions of the body. Sometimes

it ferments in the stomach and interferes with the proper digestion of that which is demanded and would otherwise be properly digested. Sometimes the stomach may digest, or imperfectly digest, more than natural hunger demands, but this digested excess may over-tax the liver or the kidneys or the forces of the circulation. The excess accumulates, in the intestines, the blood and other fluids, day by day and week by week. The over-taxed stomach perhaps cries out with symptoms of indigestion; or the liver, with symptoms of "biliousness"; or the kidneys or the skin or the spleen, with other warning symptoms; while the whole organism is in a well fitted state, affords a suitable soil, for a successful invasion by the germs or bacilli of the specific diseases. In some vigorous individuals the local symptoms,—of indigestion, "biliousness", etc., may not appear until after years of excess; the organism being for a long time able to throw off the superfluous food. Later if not soon, however, the transgression is sure to produce its effect, marked in a degree small or greater according to circumstances.

This peculiar sensation of hunger, then, in a natural state, and when not abused by long continued excess and neglect and when properly attended to and respected is a safe guide to the quantity of food required by the system. It is however so constantly disregarded and made secondary to the gustatory appetite stimulated by the "palate," that few people probably know what true hunger really is, if we except the very poor in large cities, so constantly too is a desire to gratify the "palate" mistaken for it.

Appetite is rather a desire for personal gratification, and in a gustatory sense, is constantly liable to be abused, and to overcome and crush out the more benign sensation of hunger. Johnson asks, "Who is there that has not instigated his appetite by indulgence?" By indulgence, the gustatory appetite soon becomes a very unsafe guide to the quantity of food re-

quired, and it must be controlled by will power if the natural physiological functions of the body are to be preserved. As Hooker long ago said, "The object of appetite is whatsoever sensible good may be wished for; the object of will is that good which reason does lead us to seek." In the gratification of the gustatory appetite reason must come in as a guide, considering, in a measure aside from the appetite, the needs of the system, and will power—self control, must be exercised.

The sense of taste, which was evidently given first as a guide in the selection of food, has been usually either exalted, properly enough, into a source of legitimate pleasure, as when one eats in reason guided moderation of those simple "fruits" of which Milton sang, "Whose taste gives

elocution," or it has been degraded into a source of the lowest and grossest sensual gratification, and many sorts of diseased conditions with an incalculable amount of human suffering.

Safety lies only in the selection of plain, simple viands, properly and agreeably cooked and served, and slowly and deliberately eaten, with due regard and respect to that feeling of satisfaction which one feels when one has had enough, rather than to a feeling of satiety. Habit, or use, is a strong factor in connection with this question, of "enough." On another occasion in an early number of the Journal we purpose considering further the subject of the needs of the human system in respect to food, with the effects of modern fancy cookery.

RESTRICTION AND PREVENTION OF SCARLET FEVER WHICH CAUSES MANY MORE DEATHS THAN SMALL-POX.

THE State Board of Health of Pennsylvania have just issued a pamphlet on "Precautions Against Scarlet Fever," the entire substance of which we give in abbreviation below. It contains but little that is new, but it is in a concise form, and as this disease is prevalent in a good many points in Canada it will be timely and suggestive; besides it will be useful in the prevention of other diseases.

Scarlet fever (scarlatina, scarlet rash, the same thing) is a highly contagious and infectious disease, to be dreaded more than smallpox, its victims being far more numerous, while those recovering are often left with blindness, deafness, paralysis and impaired mind.

It is attended with a bright scarlet rash and usually a sore throat, and whenever children have sore throats, or an eruption of the skin, even mildly, they should be separated from the rest of the family until a physician has seen them, or the symptoms have disappeared. The mildest type of the disease may communicate to others the most fatal form.

Scarlet fever is caused by a specific poison or contagion, which may be con-

veyed to other persons by almost anything which has touched the sick one—air, food, clothing, toys, books, wall-paper, curtains, cats, dogs, flies, the hands, etc. The discharges from the bowels, kidneys, nose and mouth are extremely dangerous, so also from the eyes, ears and skin.

So long as the skin remains in an unhealthy condition or the cuticle scales or peels off there is danger. This may continue six or even ten weeks after the fever. The infection may remain active and communicate the disease for months or years even, as when infected clothing or other article has been packed away unused.

The time which may elapse between "taking" the infection and showing the first symptoms of the disease, as feverishness, sore throat, etc., varies from one or two, to fourteen days, usually six to ten.

All persons, of any age, are liable to the disease, but most deaths from it are of children under ten years. This is chiefly because children are commonly exposed to it, and one attack usually prevents a second, though not always.

It is not at all necessary that every child

should have it and if all were carefully kept away from the infection, none would have it, and thousands of lives would thus be saved.

In any and every house where there is a case of the disease plain notice of the fact should be posted up in a conspicuous place in order that all persons not required there shall keep away. Any person with sore throat should not be kissed. When the disease is prevalent, children should be kept from all schools, or these should be closed; and travelling in public conveyances should be avoided by children. Some times the unaffected children of the family in which there is a case may be sent away to a house in which there is no one liable to the disease, but such children should not be allowed to mingle with others for two weeks.

Great care should be exercised that no food, and especially milk, be taken or distributed from any place where there is scarlet fever. Families moving should exercise great care that they do not move into houses in which it has recently existed. A written certificate to this effect from the landlord would be safest. Be wary of laundries which may chance to have received infected clothing.

Unclean surroundings deteriorate the general health and so render the human body more liable to contract this (as well as any other specific) disease. Special care therefore in this respect is most desirable. Remove or destroy filth of every sort, use disinfectants freely, and let in abundance of fresh air and sunlight everywhere.

All cases of the disease should be at once reported to the health authorities.

Newspapers in reporting deaths should be requested to mention scarlet fever, that people may be warned away.

The isolated, sick room should be in the uppermost part of the house, and as large and airy as possible; cleared from carpets and hangings of every sort, and of all other unnecessary articles. A room with an open grate or fire place is most desirable, in which a little fire, or even a burning lamp high up in the fire place, may be kept as a ventilator. A sheet wet with a

disinfecting solution should always hang before the door communicating with the rest of the house. It is better that no person but the one acting as nurse and the physician should enter the sick room. The nurse should exercise great care in all respects, but especially in respect to communicating with other members of the household.

All discharges from the nose and mouth should be carefully wiped by pieces of rag only, and each piece, after being once used, should be immediately burned. A vessel containing a solution of good chloride of lime (4 oz. to a gallon of soft water) should be on or near the bed at all times for the patient to spit into.

As the hands of nurses will become frequently soiled by the discharges, a good supply of towels and soap and two basins—one containing a solution of the chloride of lime, the other clean water—should always be on hand for immediate use.

All cups or other vessels or utensils used by or about the patient should be scrupulously cleaned in boiling water before being used by others; and all food and drink so touched should be destroyed.

All discharges from bowels and kidneys should be received direct from the body into vessels containing a strong solution of corrosive sublimate;—4 oz. of the salt to a gallon of water, with a drachm of permanganate of potash to give color, as a precaution against poisoning. For these discharges use a quarter pint of this to a gallon of water; in which it is best to keep them for several hours, when they should be consigned to a sewer, through the water closet, or buried a safe distance from any well of water supply, but never put in a privy vault.

All clothing, bedding, etc., from the patient, should be thrown at once on removal into a tub containing several gallons of the chloride solution, in which they should remain at least two hours. Never carry such things through the house before they have been wet in the disinfecting fluid.

Under the direction of a physician, it is well to anoint the body of the patient

twice a day with oil, lard or vaseline, containing about ten grains of carbolic acid to the ounce. (We think Marchands peroxide of hydrogen, medical, far superior to anything else for inunction,—mixed with lard. Ed. C. H. J.)

The patient should remain in the sick chamber, in complete isolation, until the physician states there is no danger of conveying the disease to others.

Before leaving the room the patient should take warm baths for several days at least, care being taken to remove all particles of loose skin from the body and head. After leaving the room no clothing should be worn that had been worn during the sickness or two weeks before the attack, or not until such clothing has been thoroughly disinfected.

The patient must be careful for weeks after to dress comfortably and avoid dampness and chills, and to attend promptly to any swelling of the feet or other dropsical symptoms that may appear.

In case of death, the body should be well wrapped in a sheet saturated with the corrosive sublimate solution (a $\frac{1}{4}$ pt. of the strong sol. to a gal. of water), placed in an air-tight coffin, and buried privately at once, with no children present and without being exposed to view.

The after disinfection of the room, clothing etc., should be done by an experienced person, as a health officer, and in a most thorough and complete manner.

Many things, such as playthings, used

during the sickness, paper, books or any articles badly infected, should be burned. In a city, this is best done by making them up in a compact bundle in the sick room, thoroughly wetting the outside of the bundle with a chloride or sublimate solution and then carrying it to the glowing furnace under a large boiler in some industrial establishment. If in the country, the things should be carried into a field or woods, far from any human habitation, and made to burn as quickly and completely as possible.

All clothing, towels, etc., that can be washed should first of all be soaked, with occasional stirring, for three or four hours in the second or diluted solution of corrosive sublimate before being taken from the room, and then be thoroughly boiled for at least half an hour.

Disinfect thoroughly all water closets, etc., with the sublimate solution, one part of the strong say to only three of water.

Any paper on the room walls should be removed, and all woodwork and furniture in the room, and the floor, getting well into all cracks, should be thoroughly washed with a strong sublimate solution ($\frac{1}{4}$ pt. of the strong sol. to the gal.), first wiping up, not brushing away, any and all dust to be found, and then, with every opening, crack and crevice of the room tightly closed, the room should be thoroughly fumigated with sulphur in the proportion of at least two pounds to a room ten feet square, and finally lime washed.

SEA SICKNESS AND ITS PREVENTIVES.

THE British Medical Journal of July 25th last treats the subject of sea sickness in an Editorial with special reference to the recent writings, from ten years of observation and study, of Prof. Rosenbach, of Breslau. Sea sickness is one of those minor miseries for which there appears to be no cure. Many cures have been loudly trumpeted but none have really succeeded in susceptible persons. Very little serious study has been given to the subject. Prof. Rosenbach gives his

experiences, which he uses as the basis of his explanations and arguments as to the nature of the disease, some what as follows: (1) The malady commences as soon as the vessel pitches, that is rotates or turns on its transverse axis. (2) The rolling or turning on its long axis is less severe, but the combination of the two is very unfavorable. (3) The phenomena appear more quickly and are more severe the further the patient is from the middle of the ship. Persons sleeping are attacked, also small children

and animals. In small boats without sails very sensitive persons may be affected; when sails are used sickness is more likely to occur. (5) A moderate amount of food in the stomach and a small amount of alcohol is more likely to act as a preventive than an empty stomach. (6) The horizontal position on the deck acts in some degree as preventive. (7) Anxiety and apprehension precede sickness; a certain exhibition of energy and resolution may in short voyages and with slight vessel motion control the tendency to sickness. Soft winds (for example sirocco), strong odours, etc., are unfavorable. (8) There are two categories of the affection dependent on individual predisposition; in one the head, in the other the abdomen is principally affected. Cases where both are affected are common. In regard to intensity: (a) Some women begin to feel uneasy from the beginning of the voyage, in perfectly smooth water; they are pale, and have no appetite. There is a certain dread also. (b) There is a general irritation of the nervous system during the whole voyage. The digestive organs are unfavorably affected. (c) This forms a transitional variety. Slight motions of the vessel affect sensitive persons and produce sickness with general loss of appetite, indisposition to move or speak, painful sensations in the head or abdomen. The authors theories of the disease are arranged under three heads: (1) The psychical theory, according to which all the symptoms are produced through the action of certain sensory organs upon the consciousness, giving rise to uncomfortable or unwonted sensations of disturbed equilibrium. (2) According to this the permanent disturbances of equilibrium act as painful irritations to the contents of the skull and of the abdomen and are thus causes of the phenomena. (3) The theory of the disturbance of the circulation.

As to the psychical theory, the arguments in its favour are: (1) That the sight of the

pitching and up and down motions of the vessel favour the occurrence of sickness. (2) That the abnormal effects do not occur with the eyes shut. (3) That sleepers generally escape. This last the author largely rejects, for energetic will and closure of the eyes do not quite succeed in warding off the attack. The action of visual disturbances in inducing the sickness he considers very important, but only secondary as factors in the result.

He is led to the conclusion that the complex symptoms of sea sickness are due to the molecular disturbances produced by rapid movements arising from sudden change of direction of the motion, whereby a severe intramolecular shaking and irritation primarily acting on the cells and the protoplasm of particular organs is produced. The immediate transition from one movement to another movement in a different direction is therefore assumed to be the chief cause of sea sickness. The painful sensations in the act of swinging, in the oscillation liable to occur in rapid railway journeys, agree in this, that the peculiar symptoms of irritation, the distressing feeling about the stomach, the cold sweats, the general illness, and the headache, appear at the moment when the direction of the movement changes.

As regards remedies, the author considers the only real cure is "custom." He speaks favorably of certain medicines as being often operative for very short sea voyages and approves of the advice of older writers, that the horizontal position at mid-deck should be taken before the voyage begins and that a bandage should be tightly placed over the liver, whereby the intensity of the motion is diminished, and a certain degree of fixation of the abdominal contents promoted. These precautions, with energetic will power resistance, closure of the eyes, a moderate amount of food in the stomach and a little brandy is about all we can rely upon.

MISCELLANEOUS NOTES AND EXTRACTS.

MOST RECENT FACTS ON DIPHTHERIA.

Upon the subject of diphtheria, Löffler is generally acknowledged as probably the highest authority. The following is a synopsis of what he knows of this disease. (In the Pacific Med. Record, translated from Correspond. Blatz fuer Sch. Aerzte). The cause of diphtheria is the diphtheria bacillus. It is found in the excretions of the diseased mucous membranes. The bacillus is expelled with the excretions, and may be deposited on anything in the neighborhood of the patient. Diphtheritic patients contain bacilli capable of infection as long as there is the least trace of diseased tegument in existence, and even for several days after their disappearance. Persons affected with diphtheria should be vigorously isolated as long as there are any bacilli present in their excretions. Children who have been affected with diphtheria should be kept from school for at least four weeks. The bacilli of diphtheria preserve their vitality for four or five months in particles of membrane in dry condition. For this reason, all objects which may have come into contact with the excretions of diphtheritics, such as linen, bedding, drinking and eating utensils, clothing of nurses, etc., should be disinfected by boiling water, or treatment with water vapor of 100° C. 240 F. Rooms which have been occupied by diphtheritics should be disinfected with the same carefulness. The flooring should be washed repeatedly with hot sublimate solution (1 : 1000), walls and furniture should be rubbed with bread. Investigation on the vitality of diphtheria bacilli in moist condition are not yet concluded. Possibly these bacilli preserve their vitality, when in moist condition, even longer than in dry condition. Humid and dark dwellings seem to be especially favorable to the preservation of diphtheritic virus. Such dwellings, therefore, have to be subjected to sanitary measures, especially in view of their thorough drying and accessibility of light and air. In moving from one house to another, great care should be taken for thorough disinfection of dwellings which have been infected. Diphtheria bacilli will continue to thrive outside the body at temperature of 20° C. 44 F. They grow very well in milk. For this reason the milk trade should be subjected to careful supervision. Lesions (slight injuries or abrasions) of the mucous membrane about the throat favor the attachment of the diphtheritic virus, while susceptible

individuals may be attacked by the disease without such lesions. During prevalence of diphtheria particular care should be bestowed on keeping the oral, nasal and guttural cavities of children perfectly clean. Besides this, prophylactic rinsings of the mouth and garglings with aromatic waters or weak sublimate solutions (1 : 10,000) are recommended for children. Any influence of determined meteorological elements favoring the spread of diphtheria has not been ascertained.

DETERIORATION OF WATER IN RESERVOIRS.

At a meeting of the New Jersey Sanitary Association, Mr. C. B. Brush dealt with the above named subject. He remarked that all water supplies are better at certain periods of the year than at others. In the hot, dry days the water becomes dead and lifeless, and if allowed to remain at rest for any considerable time, algæ formations appear on the surface. These, however, are destroyed and disappear as soon as the water is put in motion. If allowed to remain, the water cures itself—the algæ disappearing after a few weeks and leaving the water again in its normal condition. The algæ show themselves more quickly on water that has been filtered, either naturally or artificially. Water is delivered in its best condition when taken from a running stream and supplied directly to consumers without coming to rest during its passage. Water discolored by sediment is very often in its best condition, because the sediment is due to the fact that an abnormal volume of water is blown off from the watersheds, and any pollution there may be is so diluted as to be incapable of harm. But there is such a demand for clear water that reservoirs are necessitated, with their attending evils. Water that is stored for twenty or thirty days commences to deteriorate. This is due to stagnation, and the stagnation begins to manifest itself as soon as the oxygen in solution in the water becomes less than 0.3 per cent. The best means of preventing stagnation consists in keeping the water in motion, and there is no better way than by forcing air into the bottom of the reservoir, and keeping the water aerated. Mr. Brush gave an interesting account of his experience with a number of reservoirs where the water had become tainted in consequence of lying stagnant, and in every instance he obviated the difficulty by forcing air into the reservoir of the mains.

ON PREVENTING THE MULTIPLICATION OF DISEASE GERMS.

In regard to the disease-producing or pathogenic germs, says the Sanitary News, it is important to understand what forces or agencies will retard their multiplication or wholly destroy them. In emergencies, chemistry is resorted to and antiseptics and disinfectants are employed, but in the proper prevention of disease such emergencies should not be allowed to arise. Sunlight, pure air and thorough cleanliness are natural enemies to disease germs. They cannot flourish where they have not their proper food, and that is found in dampness, darkness, mould and filth. Keep the habitation flooded with sunshine and pure air, keep away all filth and dampness and the germs of disease will find no foothold, no nidus in which to breed or food on which to grow. Nature is struggling all the time to keep her domain healthful, and a fit habitation for man, but man shuts out the air and light, contaminates all things about him, and disease is the reward of his recklessness and neglect. There is more health in a sunbeam than in drugs, and more life in pure air than in the physician's skill. The sunlight may fade your parlor carpet, but better that than have disease fade your cheek. The wind may "tan" and "freckle" the face, but it is better tanned and freckled than thin and sallow. Help Nature to keep your habitation healthful by allowing her forces an opportunity to operate. There is more health about you than disease. Health is man's natural condition. He has to violate some law before the penalty of disease is inflicted. He can place about him such conditions that disease-germs will invade his system, or he can live amid surroundings so pure that health will bless him both in his freedom from physical ills and in the sweet consciousness of right living.

SIR WILLIAM GULL ON "SUGGESTIVE HYPNOTISM."

Perhaps the most masterful diagnostician of the past generation, and a thorough master of the natural history of disease, says Dr. M. H. Lackersteen (in Jour. of Am. Med. Assoc.), was Sir William Gull. He was a marvel among Londoners as a successful physician, and yet not a physician of my acquaintance was less able to

write a respectable prescription, or could get along better with fewer remedies in his practical working pharmacopeia. His immense practice necessitated the appointment of two lieutenants who took charge of the more important personages among his wealthy patrons, after a careful diagnosis and prognosis had been made. *The treatment under which the remarkable recoveries took place were mint water, syrup of ginger and such like remedies with strict attention to diet and hygienic management.* The assurance of the man that the disease would terminate in such a manner and within such time under the proper and judicious treatment of my friend Dr. A. or Dr. B. (his lieutenants) create a mental impression of perfect security. From that moment everything went well, and in due course of time the patient was convalescent.

INFLUENCE OF DIET ON HAIR GROWTH.

In the British Medical Journal for July 25th Dr. E. C. Mapother says: Several cases of shedding of hair after influenza have confirmed my opinion that diet has much to do with the production and with the cure of symptomatic alopecia. Hair contains 5 per cent. of sulphur, and its ash 20 per cent. of silicon and 10 per cent. of iron and manganese. Solutions of beef, or rather of part of it, starchy mixtures, and even milk... can not supply these elements, and atrophy at the root and falling of hair result. The color and strength of hair in young mammals is not attained so long as milk is their sole food... The foods which most abundantly contain the above-named elements are the various albuminoids and the oat, the ash of that grain yielding 22 p.c. of silicon. With care these foods are admissible in the course of febrile diseases... I have often found a dietary largely composed of oatmeal and brown bread greatly promote the growth of hair, especially when the baldness was preceded by constipation and a sluggish capillary circulation. Those races of men who consume most meat are the most hirsute (hairy)... I have always found that friction of the scalp with pomades and lotions dislodges many hairs which might otherwise remain, and that cold or tepid baths with salt added and rough rubbing of the rest of the body will flush the capillaries of the affected part more effectually. Besides, when pomades are used, frequent washing becomes necessary, and this is conducive to baldness.

EDITORIAL NOTES.

THE ROOT of "intemperance" is not alcohol (which, as we have said before, is not "king alcohol," but only one of the smaller devils of the great dragon, disease). This fact, which for fifteen years we have been proclaiming, is clearly becoming more and more generally recognized. It may be hard for strong prohibitionists to realize it,—to feel that during the many long years of their battle against alcohol they have been but battering ineffectually at a little earth-work, believing that the enemy were all concentrated near behind it and all that was necessary for the sure defeat of the foe was the "taking" or destruction of this one earth-work, when in reality there were hosts of such foes in near but over looked fortresses.

As Dr. Leslie Keeley, a well known railway surgeon of Illinois, says, "Ever since the landing of Noah and the Cana wedding alcohol has stood by the sick-bed," while it has "held the lamp for feasters." "If it nerves the arm of the murderer, it also nerves the heart of the fever patient." Herein is one great obstacle to successful prohibition, or to "temperance." The people find in alcohol the best balm for many of the greater banes of life. Let us build up a people, a race, who can resist the germs of disease—the microbes of tubercle and "fever", while we at the time endeavor to destroy these microbes. Then will the people resist the temptation to excess, not only in alcoholic beverages but in all other things. Then there will be indeed less temptation to take alcohol or other stimulants for there will be no strong desire for stimulation.

DR. T. Gaillard Thomas said, in a recent address, "Were I offered to-day by some great power the accomplishment of one wish, I think I would select the destruction of the process by which alcohol is created. Putting advantages and disadvantages into mental scales, I would select as the wish nestling closest to my heart, the abolition of alcohol." This is a surprisingly narrow view for a man of Dr. Thomas' eminence and knowledge to give forth. Clearly Dr. Thomas has not given much attention to the subject. It is not we believe in his specialty necessary to do so. If the editor of this JOURNAL were "offered...the accomplishment of one wish" he would select as that "nestling

closest" to his "heart", not probably the "abolition" of anything, especially not of anything like alcohol which has been given to mankind in such abundance from times beyond record—but few, if any, of all things created have no good in them—but he would select a WILL POWER, for all mankind, such as the few now have. A will power which alas even Adam in Eden did not appear possess, but which many of his descendants since, through the lines of human development and progress, have obtained,—a power of SELF CONTROL.

Now supposing the wish of Dr. Thomas were accordingly accomplished, what then would he do about ether, about opium, chloral, chloroform, the kola-nut, and many more such benign gifts to man, even to tea and coffee; for we now learn of "tea" and "coffee drunkards"? Many more wishes, instead of one, would then have to be accomplished, or the people would be worse off than before, for alcoholic stimulation and intoxication is universally known to be less objectionable, because less injurious to body and mind, than any other known form of stimulation or intoxication. Alas, when the accomplishment of Dr. Thomas' wish were completed, and he believed that the house had been swept and garnished, at least seven worse devils would come and the last stage would be worse than the first. It is only by physical, mental and moral culture, and these must go hand in hand together, that man can be raised ABOVE intemperance. He cannot be forced BENEATH it, with success, by legislation.

SELF control for the masses—for all, as well as for the few, is what we must "wish" for and strive for. And travelling along the Hygeian road, with its abundance of pure air and pure water, its wholesome food and numerous baths, with its gymnasia (not for making athletes, but for physical and mental culture, whence moral eminence comes) and its places of repose and rest, we shall reach and obtain the self control; if not to the fullest and most general extent in this world, we should at least reach that state of bodily health and vigor of the masses in which there would not exist an uncontrollable desire for stimulation. The depressing effects of foul air, from unventilated rooms and other filth, of improper and badly cooked

food, of tobacco and the numerous other causes of disease or devitalization which everywhere abound and by which the millions are held in but a half-alive boundaged condition, hardly knowing what good vigorous health really is, must be overcome by the sweeping away of the causes of them, and by a building-up process of cultivation or education. Then will be developed a will power which will do away with all necessity for prohibition or other ignoble laws,—laws which the great majority of the people will, otherwise, be virtually or practically compelled by an irresistible force to incessantly break or else fall back upon worse evils than even alcohol.

SLOW, it is true, seems the progress toward that Hygeian condition when all mankind will be ashamed to be dirty and sick, and will live with the scrupulous Hygeian care we read of in the Levitical laws of the renowned Moses. But the Dark age has passed,—the age when the "saints" gloried in dirt, when indeed a filthy body was a fetich, when nine out of ten human beings sometimes died by a pestilence, and poverty, intemperance and crime were rampant. Fifty years have brought a wonderful change; a decade even has done likewise. So recently as in 1859, ex-President White of Cornell University witnessed in the Cathedral of Naples, a city then noted for filth, appeals to fetish against pestilence. (Pop. Science, Mo., Aug. '91.) Yet now, Italy is blessed with what is probably the most complete public health system in the world. The words attributed to John Wesley, that "Cleanliness is next akin to godliness" (this JOURNAL always contending, further, that cleanliness is a part of godliness), seems to be having its desired effect. Great sanitary progress has been made in most European countries and even in the United States; and two or three of our provinces have made a beginning, although political influences are checking good progress. Canada as a Dominion has done nothing, comparatively; although there is reason to hope for a beginning in the near future.

DR. Coventry, at the annual meeting this month of Executive Health officers at Trenton, it is pleasing to note, struck an upward "key note" in urging that the Dominion government make a special grant for the maintenance of general public health work. Until the Dominion government does make a grant of money and take special action on behalf of the work

we shall not have a uniform complete system in the Dominion, and Canada will be behind other countries. If all health officers would urge in this same line it would aid Dr. Roome in his efforts in Parliament in this behalf. Provincial Boards are necessary, but, alone, they never can comprise a complete Dominion system.

THE Seventh International Congress of Hygiene and Demography (demography is really but a part of the subject of hygiene) convened on the 10th of this month in London, and will it is to be hoped give a further stimulus to hygienic work. About 2,300 people attended; crowding St. James Hall. It was under the direct patronage of the Queen, who both dignified and gratified the congress by her special interest and by "personally commanding" (Her Majesty does not condescend to invite) the "presence of all Foreign Members who were delegated by Government authority" at Esborne, affording them "the privilege of a personal reception by Her Majesty." The Prince of Wales, as president of the Congress, delivered the inaugural address, "pregnant with sound common sense", the British Medical Journal says, with doctrines of high Statesmanship" and "tinged with a sentiment, evidently real, of personal sympathy with efforts to better the lot" of the masses of the people. Apart from certain shortcomings relating to design by the executive of the arrangement of details of proceedings and "feebleness in carrying them out," London Medical Journals just to hand clearly indicate that the Congress itself has by its very bulk, numbers, intelligence, and culture, and by the brilliancy of its public and social receptions, been redeemed from anything like failure; while in many respects, the gracious patronage of the highest personages in the realm and the large participation of public corporations and municipalities, foreign governments, and the most eminent scientific men have marked the Congress as one which holds a large place in public estimation, which has been productive of much pleasant and useful scientific intercourse, and which will furnish readers with proceedings and transactions of great scientific interest and public value.

RELATIVE to vaccination, rumours are afloat, says the London Correspondent of the *Manchester Guardian*, that the Royal Commissioners on Vaccination, in their fourth report, which it is understood is now in the press, recommend some modification of the existing law: one being that the principle of "local

option" should be adopted, and that sanitary districts should be at liberty to relax the administration of the vaccination laws within their respective jurisdictions, provided that they have adopted the more recent legislation relating to infectious diseases,—isolation &c., and have built a sufficiently commodious isolation hospital. Another proposal is that parents who conscientiously object to the operation should be permitted to sign a declaration to that effect, and that they should then be left alone, with the exception that the medical officer of the district would keep such cases specially under his eye. The "antis" have certainly gained a point.

A VERY crowded meeting assembled to hear the discussion on cremation, at the International Congress of Hygiene in London this month. It ended by the passing, by a very large and crowded audience, of a resolution proposed by Sir Henry Thompson, and seconded by Mr. Ernest Hart, Editor of the British Medical Journal, "That the cremation of the dead is a rational and hygienic process, and, one which is especially called for where death occurs from contagious disease." This was carried with only four dissentients.

THE Windsor (Ont.) water supply is it appears contaminated by the sewage of Walkerville. From the position of the out flow of the sewage and the intake of the water system it could hardly be otherwise. The able Medical Officer of Windsor, Dr. Coventry, who is one of the few in Ontario who have given much attention to such sanitary subjects and have brought science and common sense to bear upon them, has been attacked because in the interest of the public health he has endeavored to have the evil remedied. He will however be fully sustained in his course by all right thinking people, regardless of such uncalled for and unfair treatment. Why do not the people of Windsor test the law relating to the penalty for polluting the water? Right and the interests of the public would in the high courts be sustained.

ANOTHER source of disease, which one may easily understand might too readily be the cause of serious and even fatal consequences, has been scientifically tested by Prof. Schnirer (in Jour. de la Sante): While at work in his laboratory in Weichselbaum he sent for some grapes with which to refresh himself. The fruit brought to him had been kept for some time outside a door in a basket, while on the neighboring street consumptive patients passed to and from the clinic, or class where students were taught. The fruit being dusty, he had it washed. On looking at the water in which it had been washed he reflected that it probably contained tubercle

injected the water into guinea pigs, which died in from 7 to 8 weeks from tuberculous disease. Every precaution was taken to prevent other sources of the infection, and the cause of the tuberculosis in the guinea-pigs "was beyond doubt the dust on the grapes. Doubtless disease germs other than those of tubercle are some times conveyed to the human body by means of fruit and other foods which are so commonly exposed in all cities to the dust of the streets.

THE British Medical Association, which can boast of nearly 14,000 members, held its 59th annual meeting on the last four days of July, last. A large amount of most valuable information is yearly given to the world by this great association, perhaps the most important and practically useful association in the world: Dr. T. Lauder Brunton, F.R.S. LL.D. &c, &c., of St. Bartholomews Hospital, President of the section on medicine, gave an unusually valuable and lengthy address, much of which bears largely on the subject of the public health, relating especially to the microbes of disease.

RELATING to the struggle for existence between microbes and the organism, which takes place between the disease germs and the cells of the organism they invade, Dr. Brunton said: the result of the struggle may be determined, not by some powerful agency which weakens or destroys either the organism or the microbe, but by some *little thing* which simply inclines the scale in favor of one or the other. In the potato-disease the victory of the invading microbe and the destruction of the potato, or the death of the microbe and the health of the tuber, may depend upon some condition of moisture or possibly of electrical change in the atmosphere which aids the growth of the microbe disproportionately to that of the potato. The conditions need not necessarily be antagonistic to the potato; but if they help the microbe more than the plant, the microbe will gain the victory.

AGAIN, Hankin has found that while a mouse inoculated with anthrax will die within twenty-four hours, a rat resists the poison altogether; but if the mouse after being inoculated with the disease has a few drops of rat's serum injected into it, instead of dying, as it would otherwise certainly do, it survives just like the rat; and from the spleen of the rat Hankin has isolated a proteid which has a similar protective action to that of the serum. Working on similar lines, bacilli, from the dust of the street. He the serum of the goat and dog which are almost entirely immune from attacks of tuberculosis, are being injected into the human organism with the expectation of preventing the progress of consumption.

DISEASE germs are enfeebled by a high temperature so that they no longer kill an animal with the same certainty and by inoculating first with a weak virus and then with one successively stronger and stronger, animals can be completely protected either from inoculation by the strongest virus or by infection from other animals suffering from the actual disease.

ANOTHER extraordinary fact is that the virus thus weakened so that it will not kill a guinea-pig a year old, and still less a sheep or ox, may again be rendered most potent by inoculating a feeble animal, such as a guinea-pig a day or two old, and from this older and stronger guinea-pig, the strength of the disease germs increasing with every inoculation, until finally sheep and cows may be killed by it. We can thus see how an epidemic of disease beginning by attacking the weaker individuals may gradually acquire such strength as to attack and carry off the strongest.

SEEING then what a very simple thing may decide the result of the struggle between the disease germs which gain access into a human body and the "euocytes (referred to on another page) which attack and endeavor to destroy them, it is of very great importance that the human body be kept always in the most healthy vigorous condition, and especially that during an epidemic, the utmost care be exercised in regard to habits of life.

DR. Adolph Seeligmuller, of Breslaur, has discussed at considerable length (*Deut. Rev.*) the subject of universal nerve troubles. He says: Tobacco has come to be a national poison in many countries, and most especially in Germany. As sequels of chronic nicotine intoxication may be noted without fear of contradiction: palpitation and weakness of the heart; irregularity of the pulse, of which heart pang or *angina pectoris* is an acute symptom; general nervous debility; tremulousness; disturbances of vision, even to the point of blindness; and hypochondriacal depression even to the degree of melancholia. The fear-inspiring intermission of the pulse is a frequent cause of inveterate insomnia. That the children of smokers suffer frequently from nervous diseases is an established fact."

THE New York Medical Journal says in a recent issue: The tripod of longevity may be said to be a sound stomach, a warm domicile, and unruffled temper; these three parts working well together will sustain the traveler wonderfully during the last stadium of life's journey. Inherited vigor must, of course, be taken into

the account, as also the favoring circumstances of country life and the ability to employ the mind helpfully and cheerfully as age advances.

HEREDITARY influence is now stated mathematically in the following way; That the probable duration of a man's life may be known if the ages at death of his parents and grandparents are known, and that if these are added together and then divided by six, the quotient will be his approximate term of life. If the quotient exceeds sixty, one year may be added for every five; if it falls below sixty, one year should be subtracted for every five. The presumption in this proposition is that with good fortune a man may equal, but he may not hope to appreciably or much excel, the average of his parents' and grandparents' lives.

RELATIVE to reported cases of poisoning by canned salmon, a Dr. Murray of Gloucester place writes to the British Medical Journal as follows: I was summoned to a house in the neighborhood with a message that a whole family had been poisoned. On my arrival I found six persons in bed—a lad aged 12 years, three daughters and mother, and the cook. I ascertained that the patients had all partaken of tinned salmon for supper on the previous evening, and were seized towards early morning with violent pains in the stomach, sickness, and headache, with profuse diarrhoea.... Altogether, the symptoms pointed to irritant poisoning, and in the absence of any metallic poison being detected, the only explanation that can be offered is that death occurred from the presence of ptomaines.

IT HAS been urged time and again for years that, as canned meats will deteriorate and may become poisonous through change, with time, no matter how well they may be put up, all manufactures of such foods should be compelled to put upon every can the date upon which the canning is done. Consumers could then avoid the old goods.

SIR Peter Eade, M.D., &c., at the annual meeting last month of the British Medical Association said: A gentleman called upon me suffering from distinct but mild influenza. He traced his attack to having licked the gum of an envelope sent to him to be returned, in a letter from a correspondent, who wrote that he was suffering severely from the disease. He said that he immediately felt that he had done a foolish thing; and curiously enough in about forty-eight hours from this time he was seized with influenza.

THE *Globe*, Toronto (Tues. 25 inst.), says "The *Canada Health Journal* supplies the daily press from time to time with advance proofs of those of its articles of most importance to the general public, and deserves the highest commendation and support for its efforts to spread abroad everywhere the principles of hygiene, so vitally important to the well being of the community." The *CANADA HEALTH JOURNAL* appreciates such kind words, from so influential a source; and is much pleased to find the *Globe* one of the very foremost papers in aiding the *JOURNAL* in its efforts to spread the principles of health.

SIR Morell Mackenzie, M.D., &c., &c., in a paper in the June *Fortnightly* asserts that in his opinion "the riddle of influenza is poisoned nerves," and from this hypothesis "the bewildering diversity of symptoms becomes intelligible, if we regard them as the results of disordered nervous action." He compares it to the extraordinary disturbance in telegraphic systems produced by a thunderstorm, and says this is nothing "compared with the freaks played by the living conductors in the human body, if anything throws the governing centres out of gear."

IN London steps are being taken to found an Institute of Preventive Medicine, with the following objects: To provide a place in which researches may be carried on with a view of finding the means for preventing and curing infective diseases in man and the lower animals. To provide education in preventive medicine for medical officers of health, veterinarians, etc. To treat persons suffering with infective diseases or threatened with them. To found laboratories, libraries, etc.

A *DELUSION* and a snare. The *Sanitary News* says: The question of the disposal of sewage is receiving a new impetus in the way of discussion. The disposal by waterways is being more strongly condemned, and disposal by artificial means advocated. The truth will come eventually that pure water cannot be obtained from streams into which sewage is emptied. *Dilution is a delusion and a snare.* Some other means for the disposal of sewage will come soon as one of the extremest necessities.

IN England some one has made the extraordinary, indeed ridiculous proposal that the sewage of cities be pumped through large pipes laid along the railway courses and drawn off and utilized at various points along the route for agricultural purposes. All sewage rather should be transformed into a non-fermentable substance—a compost or food for vegetation in the soil, within 24 hours of its formation.

A BLOOD purifier, far better than any—"patent" or other, which can be bought at a drug store, is to renew the blood by a suitable amount of wholesome food and cleanse it by the use of abundance of pure water, inside as well as outside the body.

SEVERAL American cities, according to the Sanitary Inspector, of Augusta, Maine, of late have shown an interest in establishing public baths available to the poor during the winter as well as in summer. "A charity of this kind for the mitigation of degradation and disease is a much better investment than crowded hospitals and prisons.

THE American Public Health Association will meet in Kansas City, Mo., Oct. 20th to 23rd. The Executive Committee have selected the following important topics for consideration: "Sanitary Construction in House Architecture;" "Railway Sanitation;" "Meat Supplies;" "Milk Supplies of Cities;" "Arsenical Papers and Fabrics;" "Isolation Hospitals for Infectious Diseases in Cities." Other papers may be presented to the Committee.

AN epidemic of typhoid fever broke out in Sweden recently, and was traced through the milk supply to the family in which the first case occurred, hence to a well into which there leaked drippings from a manure heap twenty feet away. The milk cans were washed with this water every day, and when the practice was stopped the epidemic ceased.

AN outbreak of trichinosis is reported in Iowa, from two hogs, a part of which was made into sausages, and some of which were eaten by a farmer's family and some invited guests. Seven had died. Trichinae were found in the pork, in the sausages, and in the muscles of the dead.

A GOLD medal was awarded at the Jamaica Exhibition, to Labatt's India Pale Ale, of London Ont., in competition too with ales from England, Scotland and the United States. This speaks well for Canada.

A LARGE addition was made last summer to the already large Sanitarium at Battle Creek, Michigan, yet the institution is about full. The number of guests and patients is now larger than at any previous time in its history—numbering more than four hundred; with about three hundred helpers,—nurses, attendants, physicians, &c.

THE Florence Nightingale sick bed appliance seems destined to be generally regarded as an indispensable article in every well regulated or complete household.

NOTES ON CURRENT LITERATURE.

In the September Popular Science Monthly, Dr. Andrew D. White will relate how hygiene succeeded fetichism as the reliance of the Western world in checking the ravages of epidemics. These articles form a highly interesting series for Sanitarians

THE Dominion Illustrated during the last few weeks has given some very fine illustrations with good reading matter, and the publication is highly creditable to Canada as well as the publishers; who announce that they have already begun the preparation of their Christmas number. to be "the finest holiday souvenir ever issued in Canada.

OF THE Illustrated London News (N. Y. Edition, World building) we feel we never can speak too highly. It gives so much for so little (only \$4 a year),—instructive scenes with descriptive text and some very pretty pictures. "The Scapegoat," an Oriental romance by the author of the "Deemster," is a singular and interesting story.

AMELIE RIVES has returned to the United States, and after two years of silence and—marrying and travel, matured, she contributes to the Cosmopolitan a new story, which is said to fulfill the great promise of her earlier productions. The scene is laid in Paris, where the author has been living, and the heroine is a Virginia girl who is studying music abroad with a negro servant for a chaperone. The story is very prettily illustrated. The frontispiece of the August Cosmopolitan is a truly charming portrait of the handsome Amelie. This is a most excellent magazine.

ORDINANCES OF THIS JOURNAL.

PREVENTION first. Sir Wm. Jenner has said, "To prevent disease is the most important aim of the science and art of medicine"; and the eminent Dr. Samuel Wilks, F.R.S., &c., in a lecture at Guy's Hospital, said. "The idea of cure is low-born and common-place," "Cur- lies at the bottom of all quack systems," Pre- vention is significant of higher intellectual advancement: "with all of which this JOURNAL has ever been in full accord," and outspoken in its views thereon, alone and in council

Pure air: The complete destruction of all waste organic matter, by fire or otherwise; no collections of excrement anywhere—perfect

sewerage, or daily disinfection or deodorization with frequent removal; thorough ventilation of all buildings, public and private; complete isola and disinfection in all cases of infectious disease.

Pure Water: Strict prohibition of the pollution of all inland waters—rivers, lakes, streams—by sewage or other waste substances; filtration of public water supplies; closing of suspected wells.

Pure Wholesome food: Prompt and severe punishment of all adulteraters of food, with frequent and repeated analyses; thorough inspection of foods—meat, milk, flour, bread, fruits, &c., with punishment of all offering impure or bad food; improved methods of preparation and cooking food.

Clean People: Public baths, frequent washing of the surface of the body, with free water drinking, a judicious diet, suitable clothing, exercise, abundance of rest and sleep.

Education of the public in all Matters Pertaining to Health.

STANDING HEALTH MAXIMS FOR DAILY PRACTICE.

Remember: money lost or spent you can earn or get again, but health once lost you may never regain.

PERHAPS, most important of all, never sit or sleep very long in a room without some means for changing the air in it—ventilation. Air once breathed is highly poisonous, remember.

Do not shut out with shutters or blinds, the sunshine from your rooms. Neither rooms nor the human body can be long in good condition without abundance of sun light.

BE careful what water you drink. Boiling always renders it safe, for the time.

LEARN to enjoy the "good things" of the table by eating them very slowly. It is a good rule to try how fine you can chew every mouthful. Never take a mouthful of drink when you have solid food in your mouth.

WELL considered moderation in eating is a wonderful promoter of health.

NEVER eat when very tired, nor when overheated. Wait and rest a little.

WATER acts as an internal as well as an external bath, and one who drinks but little water is not clean within.

ONE-FOURTH of the disorders of fashionable life are said to be due to lack of sufficient water in the dietary.

LEARN to take things QUIETLY during the heat of the day at this season, and avoid getting dangerously overheated.

IN walking, when warm, walk very slowly, or sit a few minutes or stand and face the wind, as there is usually a little stirring