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CANADA HEALTH JOURNAL,

A MONTHLY MAGAZINE OF
PREVENTIVE MEDICINE

—EDITED BY—

EDWARD PLAYTER, M.D.

Public Health and National Strength and Wealth.

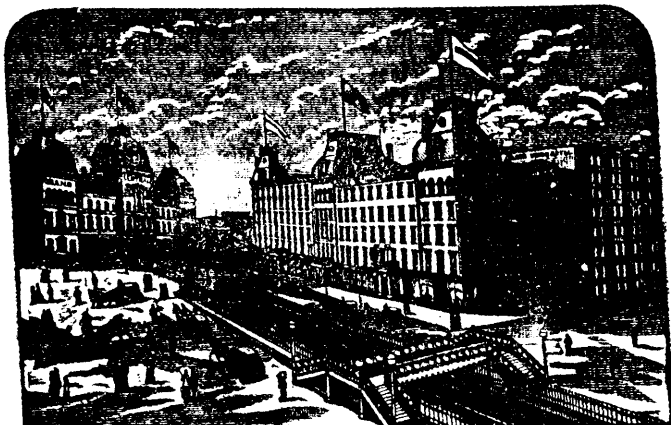
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No. 6.

THE WORK OF SANITARY OFFICERS—MORE THAN EPIDEMICS AND INFECTIONS TO ATTEND TO.

THE following is from an address to the Association of Sanitary Inspectors, at Liverpool by Dr. Alfred Carpenter, on May 18, 1888: Gentlemen, you have a higher motive than that of self preservation. You desire to be worthy of the offices you fill, and to perform the duties pertaining to them with credit to yourselves, and advantage to the locality in which you are placed. Here is the motive, and it is one which must commend itself to the citizens of this great commercial metropolis.

What is that higher motive? You desire to get more knowledge upon the work in which you are engaged. You desire to go the shortest, and the most successful way by which you may effect the object you have in view. You desire to do this with the least disturbance to the people among whom you are placed, and to do no unnecessary work. The effect of the desire must be that it is necessary to know the results of sanitary work elsewhere, as well as in the North-Western provinces of England, and that you should have opportunities of meeting together for the purpose of submitting to your practiced eyes the work of other men, and the theories which may be based upon that work. Sanitarians like myself are always delighted to get the opinions of practical men upon suggestions which are continually cropping up, and a few words spoken in a meeting like this where work is explained as performed elsewhere, either exposes its weakness, or points out the strength of the proposal in a most convincing manner when the words are spoken by practical men.

It is curious to note the ignorance of the nominally educated public upon the nature of your duties. It is but too often supposed that it is simply a question of waterclosets, of drain-pipes, of cesspools and slums, with which the so-called better class of people have nothing to do. The cook and the kitchen-maid have to see that the dustmen do their work; and if that is done, and the waterclosets of the house do not smell, the public think they have done their part in the matter, and they relegate the sanitary inspectors and their assistants to obscurity and sometimes unsatisfactory neglect.

I want to show the outside public, if they will listen to me, that there is something much higher in sanitary work than the points I have mentioned. That unsavoury subjects may be put aside, but if their condition is not supervised by intelligent men who understand what they are about, it is the public who suffer most, and that but too often in ignorance of the true reason for their suffering. The duties of sanitary inspectors may be mainly in the slums; they may be at work in the supervision of dustbins, of sewers, of cellar dwellings, of slaughter houses and knackers' yards, of food markets and refuse heaps in out-of-the-way places; but if their work is only half done, if they only comply with the letter and do not enter into the spirit of their work, the effect of their perfunctory performance may make itself felt when least expected, and in ways which cannot be brought home directly to the delinquent and neglectful people.

It is not only by the removal of epidemic and infectious disease that a locality benefits by sanitary inspection. There may be a complete absence of the disease of germs upon which typhoid or small-pox depends. There may be no scarletina in the district, and the so-called zymotic death-rate may be low, and yet the health of the district may be most unsatisfactory. It is too much the custom to study what is called the zymotic death-rate, and to judge from that factor as to the general health of a given district; and it is often assumed that because that form of disease is not so fatal as in other places, therefore the sanitary state of that district is satisfactory. This is a serious

mistake. I want the public to become aware of this, and to recognise the fact that sanitary work can go much further in the prevention of disease and death than this. Why should men, women, and children die of disease at all? There is no provision for death in early life except by accident, ignorance of the laws of health, and neglect of duty towards our neighbour on the part of somebody. Accidents may be reduced to a minimum, as is shown by the effect of responsibility in this direction upon railway companies; only thirty-seven deaths have been caused on railways in the whole of the kingdom during the past two years, a tithe only of those which happen in the streets of Liverpool. Would they have been so limited if it had not been for the law of responsibility? No doubt accident may be entirely prevented by proper regulation, and by throwing the legal responsibility of result upon those who cause it. The duty towards our neighbour is being learnt by local authorities by the agency of sanitary inspectors; and legal responsibility again is coming to the assistance of public health by making owners responsible for consequences when they let a house in an infected or insanitary condition to an unsuspecting tenant. We want an extension of this legal responsibility which shall apply to Corporations as well as to single landlords, so that when a Corporation supplies an infected water to their customers, or neglects to enforce some of the laws of health, the rules for the enforcement of which are placed in their keeping, but which are not enforced, that they should be equally responsible for the results when it can be brought home to them, and should feel the consequences of failing in their duty upon the points in question. The ignorance of the laws of health among the masses can only be counteracted by healthy education, and it is here that the assistance of the sanitary inspector is especially useful. If the house is dirty, if the ceilings of the homes of the people are blackened, if they leave their floors in a filthy state, and their back yards polluted with ordure, you can give a clinical lecture upon the evil results of such states, and assist the people to the knowledge of the fact that 'Cleanliness is next to godliness,' and that a good supply

of pure water is far more to their advantage than the near neighbourhood of the public-house. You, of all men, know that, as a rule, the nearer a working man's home is to the gin-shop the dirtier is the dwelling, and that the unwholesomeness of the atmosphere of the district may be frequently measured by the number of the drink shops which may occupy a given area.

You, with the ministers of religion, and the doctors, have especially brought to your knowledge the evils of intemperance, and its close relationship to disease and death, and how the excess of drink shops raises the death rate of a town.

I have said that sanitary practice is of much greater benefit than simply preventing epidemic diseases. I will explain my meaning. Let us take fifty cases of inflammation of the lungs, or of bronchitis, or of scarletina, this latter of course, the result of infection. Why do some die, and some recover? Why should disease be fatal at all? Fatality is connected to some extent with the surroundings in which the patient has lived before he became affected, and is living at the time at which the disease commences in a given district. If there has been a large number of fatal cases of inflammation of the lungs, you may be certain that the air of that district is not so pure as it ought to be, and the habits of the inhabitants are not so prudent as they might be. No man dies of inflammation of the lungs in middle life, or indeed of any acute disease, be what it may, if he has lived healthily both as to habits and character of surroundings. If a district has a death rate of 24 in the 1,000, it is double what it ought to be. The half of the deaths which take place might have been prevented if the people would obey the laws of health, keep their houses and their persons clean, dispose of their excreta in a proper way, and be temperate in their habits of living, and at the same time do their duty to their neighbour by avoiding the sophistication of articles of diet, or indulging in the mischief of adulteration for the sake of the riches which follow upon its pursuit. The evidence which is forthcoming in support of these views is such as must carry conviction in the long run to the minds of the

British people, and must lead them to punish adulteration, to put further impediments in the way of the liquor traffic, to insist upon property owners fulfilling their duties and accepting their responsibility as well as taking the interest upon their capital, and lastly in compelling local authorities to appoint officials to do their work who really know how to fulfill the duties they undertake to perform, and give them instructions to carry out that work without fear or favour.

INTEMPERATE HABITS AND DISEASES.

BELOW is a summary of conclusions arrived at by the Collective Investigation Committee of the British Medical Association, and published in the British Medical Journal of June 23, 1888. The report is based on dates returned from between four and five thousand cases:—

On the whole, then, in addition to the information that we obtain from these returns as to the alcoholic habits of the inhabitants of this country, and as to the relative alcoholic habits of different occupations and classes, we may not unfairly claim to have placed upon a basis of fact the following conclusions:—

1. That habitual indulgence in alcoholic liquors beyond the most moderate amounts has a distinct tendency to shorten life, the average shortening being roughly proportional to the degree of indulgence.
2. That of men who have passed the age of 25, the strictly temperate, on the average, live at least ten years longer than those who become decidedly intemperate. (We have not in these returns the means of coming to any conclusion as to the relative duration of life of total abstainers and habitually temperate drinkers of alcoholic liquors.)
3. That in the production of cirrhosis and gout alcoholic excess plays the very marked part which it has long been recognised as doing; and that there is no other disease anything like so distinctly traceable to the effects of alcoholic liquors.
4. That, cirrhosis and gout apart, the effect of alcoholic liquors is rather to predispose the body towards the attacks of disease generally

than to induce any special pathological lesion. 5. That in the etiology of chronic renal disease, alcoholic excess, or the gout which it induces, probably plays a special part. 6. That there is no ground for the belief that alcoholic excess leads in any special manner to the development of the malignant disease, and some reason to think that it may delay its production. 7. That in the young, alcoholic liquors seem rather to check than to induce the formation of tubercle; while in the old there is some reason to believe that the effects are reversed. 8. That the tendency to apoplexy is not in any special manner induced by alcohol. 9. That the tendency to bronchitis, unless, perhaps, in the young, is not affected in any special manner by alcoholic excess. 10. That the mortality from pneumonia, and probably that from typhoid fever also, is not especially affected by alcoholic habits. * * * 12. That total abstinence and habitual temperance augment considerably the chance of a death from old age or natural decay, without special pathological lesion.

It is very greatly to be regretted that the returns to this inquiry were not far more numerous than they actually were. The conclusions drawn from the inquiry would have had much more weight had we been able to base them upon an aggregate of ten or twenty thousand cases, instead of four thousand and odd only.

DIPHTHERIA FROM FOWLS.

ON many occasions reference has been made in this MAGAZINE to the probability of diphtheria originating from manure heaps, of which there has been much evidence. It seems highly probable from the following, which we find in the St Louis Courier of Medicine for May, that the excreta of fowls may often contain and give rise to the infection :

In L'Union Medical, Feb. 14, 1888, the Curier of medicine states, we find a paper by M. L. H. Petit, on the transmission of diphtheria to the human race from fowls. He refers to various studies on this subject by different writers. Bacteriology has

now made such progress as permits Loeffler, Cornil and Babè to affirm the almost absolute identity of the bacilli found in the diphtheritic false membranes of birds and those of infants. Supporting the facts reported by Nicate, M. Petit finds a thesis by M. Menzié sustained before the Faculte de Medecine de Paris, in 1881, and more recently Delthil, Pamard and Bouchard at the Congress at Nantes (1886) and Tessier at the Congress at Vienna (1887) cited others of the same kind.

M. Menzies has undertaken to demonstrate that diphtheria is caused by the dejecta of birds: he reports no case no contagion from birds to man but we know that diphtheria of fowls is frequent in Italy according to several authors cited by Megnin, Ercolani and Pietra Santa among others. He had occasion to observe at Naples, an epidemic of diphtheria, which attacked the family of one of his colleagues. Of five children four were attacked and died: then the epidemic extended to others. M. Menzies attributed this epidemic to the water, washed from the flat roofs of the houses on which flocks of fowls, turkeys and pigeons live and roost, which the patients drank. The servants had been forbidden to use this water for cooking or drinking purposes, but disobeyed. The one of the five children which did not take the disease, did not drink of the water.

A boy, aged seven years, living in a house opposite the preceding one, drank water from the same well, and was also attacked with diphtheria and died. In another house there was a large dove-cote: all the ordure from its occupants found its way into the well. Among the dwellers in that house a lady and four of five children died.

M. Menzies believes then that in every epidemic of diphtheria it is necessary to seek the source of the trouble in the vicinity of chicken roosts, of piles of manure, especially the manure of stables, and in deposits of guano.

The epidemic recorded by M. Parlinis presents almost the conditions of a laboratory experiment. It ravaged an island on which there had previously been no case of diphtheria: it was brought there by sick turkeys which died of diphtheria clearly and well developed: some days later diphtheria attacked

the children and rapidly extended over the whole island. But here it was not, as in the epidemic reported by M. Menzies, the water which served as a carrier of the virus, but the air. The epidemic continued five months and of a population of 4,000 attacked 125, of whom 36 died.

M. Petit thinks that the observations thus far, are made favorable to the origin of diphtheria in man by infection from birds. It is a matter of interest in this connection to observe that during the special prevalence of diphtheria in St. Louis during the last two years the cases have been most numerous in the section of the city where dairies and cow stables are most common. It would be a subject of profitable investigation to learn whether there has been any notable prevalence of disease among the fowls at these dairies.

THE HENDON COW DISEASE AND SCARLET FEVER.

DR. Buchanan ("Annual Report of the Medical Officer of the Local Government Board for 1887") thus formulates the present evidence on this point:—1. The disease in man and in the cow alike is characterised by closely similar anatomical features. 2. From the diseased tissues and organs of man and cow alike the same micrococcus can be separated, and artificial cultures can be made from it. 3. These subcultures, no matter whether established from man or cow, have the property, when inoculated into calves, of producing in them every manifestation of the Hendon disease, except sores on the teats and udders; no doubt for the reason that the milk apparatus is not yet developed in calves. 4. But—and this I learn from Dr. Klein's later observations while this report is in preparation—the subcultures made from human scarlatina and inoculated into recently calved cows can produce, *in those cows*, along with other manifestations of the Hendon disease, *the characteristic ulcer on the teats*; ulcers identical in character with those observed on the Hendon farm. 5. The subcultures established either from the human or the cow disease, have an identical property of producing in various rodents a disease similar in

its pathological manifestations to the Hendon disease of cows and to scarlatina in the human subject. 6. Calves fed on sub-cultures, established from human scarlatina, obtained the Hendon disease. 7. Children fed on milk from cows suffering under the Hendon disease obtained scarlatina. "The above combine," says Dr. Buchanan, "to form a mass of evidence to show that the Hendon disease is a form, occurring in the cow, of the very disease that we call scarlatina when it occurs in the human subject."

Dr. J. B. Russell, Medical Officer of Health, for Glasgow, has issued a report on an outbreak of scarlatina at Garnethill (British Medical Journal, May 5th, 1888) which bears very strongly on the same question. After a careful house-to-house visitation of the district he found that there were ninety-five cases in all, and that each of these cases obtained milk from the one dairy. All the cases had fallen ill since March 15th. The milk was, therefore, the obvious medium of infection. Further investigation led to the suspicion that the milk in this dairy had come from a farm at which there had been a case of scarlet fever. The son of a farmer who brought in the milk was seized on March 23rd with the first symptoms, and the byre-man on March 24th was seized with sore throat. No other person had been ill. With the view of answering the question: Did the milk derive its infection from the cow? as in the Hendon case in 1886, Dr. Russell and Mr. McCall, veterinary surgeon, carefully inspected the stock. Two cows were found with scabbed sores on the teats. One of these was miserably thin and mangy-looking, casting its hair and skin; the other was in good condition, not casting its hair, and the sores on the teats bled freely. These cows were removed to the Veterinary College for observation on March 31st. Owing to the state of the law no inoculation experiments were possible, and consequently the field of observation was much restricted. This much however, Dr. Russell says, is certain: a calf fed on the milk from those cows was almost at once seized with a highly febrile illness, which nearly killed it, but from which it is now recovering with loss of hair and copious casting of the

skin. The cow which was not casting hair or skin when removed is now doing so freely. Dr. Russell's object in making the present report is not to draw premature inferences or make rash statements, but to show that he has in hand a question of immense importance both to the consumer and producer of milk, and to obtain permission of the local authority to buy these cows and otherwise make a certain expenditure of money on the question.

WHAT PRINCIPLES ARE TO BE RECOMMENDED FOR
THE INSTITUTION OF AN INTERNATIONAL
REGULATION OF EPIDEMICS.

AT the late meeting of the International Congress of Demography and Hygiene at Vienna, according to *Le Progrès Medical*, Dr. Sonderegger made the following report on this question :

1. All regulations directed against the spread of epidemics rest on the belief in the existence of contagion.

2. In order that the contagion shall reach active development, favorable conditions of time and place are indispensable. The duty of hygiene is to study the general local receptivity for epidemic diseases, to hinder the development of the contagion ; the task of sanitary police is to hinder the entrance of the contagion, and once it has entered to destroy it. If one of these two tasks be executed with the exactitude of physical experiment, the other becomes easy, often useless. But if it is not so, it is a fatal error to think that a regulation of sanitary police, however perfect it may be supposed to be, can be of any service as long as public hygiene is neglected. Hygiene exceeds in importance in time of war as in time of peace, in epidemics as in endemics.

3. The bacteriological discoveries of our epoch have not impaired in any way the value of the predisposition of time and place ; on the contrary, they have completed it. The formerly unknown force which brought about the explosion of an epidemic in an infected region has now become visible and tangible.

What we call regulation against epidemic relates almost exclusively to the natural history, to that vital consideration of the living contagium, which in accordance with its specific nature is susceptible of multiplication and migration.

4. The means of communication in our age have manifestly narrowed the globe, the nations have been drawn together, their reciprocal interchanges have become vastly important and frequent. These interchanges do not apply to works of the intellect alone nor to the productions of a country and its industry, but especially to the men themselves. The native of any country whatever has become, in a very appreciable measure, a citizen of the world.

5. As to the objects that may become the vehicle of contagion, they travel now with sufficient rapidity to transport the necessary active germs from one country to another, man in particular requires less time to traverse even a very extensive country than a contagious malady, of which he carries the germ, requires to spring into activity.

6. For this object, all the frontiers up to our time have been inefficient for the arrest of the germs of epidemic disease, and efforts made with that view, by the creation of sanitary cordons, have been absolutely useless, and in the majority of cases have been positively injurious.

Complete interruption of all intercourse, hermetic sequestration against the gravest epidemics is a Utopia. This fact is no longer debatable.

7. All measures which restrict to a single country precautions against an epidemic are most frequently insufficient, and that above all in proportion to the importance of the relations of that country and the extent of its frontiers. To attempt to enforce sanitary police regulations in small States or in particular provinces is veritably Utopian.

In large countries, in Italy, 1884, in Spain, 1885, and hitherto in Russia, in Austria, in Germany, France, and in England, epidemics remain often stationary for a whole year at a time, and in spite of all interchanges of people and merchandise have not encroached upon neighboring nations. It is

because the soil is not everywhere morbidic at the same time, and that the inhabitants are not all at the same time in a state of receptivity. It is for this reason that the greater part of contagious maladies come to be epidemic and seldom come to be pandemic. To-day the conditions of contagion are exactly known; but the predisposing conditions, the time and the place, they are not so well known. We cannot, therefore, at all know whether an epidemic will remain limited to a single country, and whether neighboring people will remain exempt. Consequently, outside of special sanitary police ordinances in the contaminated country, an international sanitary police is necessary. Its organization as regards time and expense would cost infinitely less than the loss in men and values caused by an epidemic of moderate intensity. Commerce and ordinary political enterprises run much greater risks, with the promise of much smaller gains.

8. All countries in the outset ought to possess a central bureau of public health. But this bureau ought not to be outside of the current of relations which unites all people of the world. In our day a sanitary police intended to guard against epidemics is efficacious only on condition that it is international.

9. The first obligation is to determine and publish each case of an epidemic or contagious malady. Every physician should be required to do this, and when it relates to a disease easily recognizable, as small-pox or cholera, every master of a house or head of a family should be subjected to the same obligation. These publications should be sent to the central bureau of the district or the country in the most rapid manner possible. It should be the duty of this central bureau (*a*) to inaugurate special suitable measures and to insure their execution, (*b*) to advise directly or indirectly all the central bureaus of the other countries of the continent. Immediate publication by means of the daily press is unnecessary, for it alarms the popular masses, and furthermore, if the sanitary service is well organized it will have no influence on the taking of efficient measures. It is only when an epidemic has reached an extensive development that the daily publication of the number of cases

and the mortality becomes legitimate, and that purely for psychological reasons, with a view of restraining the panic.

(10.) The tenth obligation is the immediate and complete isolation of the diseased, who may transmit the contagion. For this purpose every important locality ought to have prepared in advance a well-regulated organization and a plan for isolation with necessary material and attendants.

(11.) In the eleventh place, a service of great watchfulness ought to be recognized for the entire population, as yet free from the disease, (*a*) in the locality where the epidemic begins; (*b*) in all centres of commercial transactions. Ships and sea-ports ought to keep in strict surveillance in the greatest state of purity, in order that they may not become centres of infection. In each commercial centre stations of observation ought to be established as asylums to receive the diseased or those who may be suspected of being so, and who shall be pointed out by the employees of railroads and ports and by the physicians of vessels. Quarantine which applies to all travellers is injurious from every point of view. It should be authorized for twenty-four hours or more for the purpose of facilitating observation.

(12.) Twelfthly, provision ought to be made at the very outset for the disinfection of the probable vehicle of contagion—that is to say, in the case of cholera, (*a*) disinfection in the very chamber of the patient and not in privies and water-closets. In cases of small-pox, typhus, and the pest, disinfection and if possible incineration of the clothing and other objects used; finally, disinfection of the patient himself by ablutions and baths. The old method of the disinfection of travellers by fumigation so religiously maintained, ought to be formally prohibited as constituting an absolutely useless vexation. (*b*) The provision of an apparatus for the projection of steam in each important locality where there is much passing, such as railway stations, sea-ports, and relays of ports. The application of this is easily understood and it may be put in operation with another object also in view—namely, the supplying of fire-engines. (*c*) Disinfection of contaminated means of transport.

13. The different States of the continent should have an understanding among themselves in regard to who are to be declared diseased, and to isolation and disinfection, and they should revise their agreements as often as the progress of science and art should require it. For the present period the agreement of the Sanitary Conference in Rome, in 1885, may serve as a model.

14. For an entire continent, a central bureau should be inaugurated, which should insure in each prophylactic security. This central bureau, international sanitary bureau, ought not to be occupied with scientific questions, and ought not to possess any executive authority, but ought to preserve the character and perform the functions of a centre of co-operation. Its duties should be the following.

(a) This bureau should receive from or send to the central bureau of each country official communications on the state of epidemic diseases.

(b) A summary of the evidence of each country should be communicated to all the other bureaus, to insure promptness of execution of the prophylactic measures judged opportune.

(c) In like manner the sanitary bureau should act as an international exchange of observations and propositions touching the health service of epidemics, with a view to their uniform application.

(d) It should collect the laws and regulations for the police of epidemics, and the facts that are useful to give a clear view of the sanitary condition of the country, and watch for whatever should be announced to all the adherents.

(e) It should bring together the statistics of the number of sick and the number of deaths of all epidemic diseases that occur.

(f) It should supervise the uniformity of nomenclature of diseases and the utilization of the different statistics.

15. This international sanitary bureau should have its seat in a small State, where the possibility of political pressure is as far as possible excluded, preferably Belgium or Switzerland.

It is only when the march of time shall have clearly revealed the innumerable catastrophies due to negligence, as well the causes which have engendered them, that the different States will resolve to insure an international sanitary service by the aid of a penal code like that published in England in 1883.

At present it is impossible to bring this question to a settlement. The only thing possible is the collection and communication of facts.

ON HUMAN LIFE STATISTICS.

ON this continent there is no general or complete system for the collection and utilization of statistics directly bearing upon human health and life—of regular statements of the number of children who are born and the number of people who die in each month or year. In this age of true scientific progress and of pride and competition in national development, the importance of such statistics must be apparent to every intelligent person. In England a Bureau of vital statistics has become a very important department of the kingdom. There a weekly bulletin, of the births and deaths of the previous week in twenty-eight of the largest towns or cities, is distributed throughout the country, showing at a glance the general progress or otherwise in the health-state of the people of these centres, and indeed through them of the whole country.

Different States and Provinces on this continent have undertaken to collect like statistics but heretofore with not very satisfactory results. The desirability of some complete system for the whole of the United States, with a central bureau at Washington, has been repeatedly discussed by those taking most interest in the health and well being of the people and the nation, and few doubt the necessity for such a bureau.

In Canada a few years ago a system was inaugurated, in connection with the Department of Agriculture, for the collection of the mortuary statistics—the number of deaths with their causes, &c., in certain cities in different parts of the country. This system has developed and now regular monthly

reports are made to the Department from twenty-six cities and towns, comprising all the principal cities, between the Atlantic and the Pacific Oceans;—that is, from twenty-six centres, extending throughout the length and breadth of the Dominion. The figures on the whole are believed to be fairly correct, for a new system; from some of the cities probably as accurate as it is ever possible to obtain such statements. In other of the centres the statistical officers may require admonishing, and to give more care to their work. If carefully carried out, the system provides for absolutely accurate figures and may easily be made to include only those who die within the limits of the several places making the returns.

While on the whole it is far from what is desirable for so important a country, a monthly bulletin is now issued by the Department, which in the absence of a better system, and limited as it is, form very useful data. They provide a basis for sanitary requirements; indicate from month to month the location of epidemics, and show to a very fair extent the general mortality of the Dominion and indicate monthly the general condition of the public health in a manner which is satisfactory in a high degree, and sometimes profitable. The statistics are quoted in other countries, and sometimes favourable comparisons are drawn therefrom. Recently they enabled the Secretary of the Provincial Board of Health of Quebec to directly and squarely contradict a statement just previously published in a New York high class periodical, that small-pox was endemic in that province, and moreover, to further state definitely that there had not been a death from this disease, probably not a case of it in the entire Dominion for a period of about two years. *En passant*, what other country can boast of a similar good fortune?

From these statistics we learn furthermore, and as an example illustrative of their value, that during the first three months of the present year there were recorded in the twenty-six cities and towns, 4,213 deaths, while during the same period of 1887, only 3,816 deaths were recorded; or 397 less than in the late quarter. They show us that in the five larger cities—

Montreal, Toronto, Quebec, Hamilton and Ottawa, there were 321 more deaths in the first quarter of this year than in that of last year; that in Montreal alone there were 275 more deaths in the first quarter of 1888 than in that of 1887, or an increase of over 20 per cent.; in Toronto an increase of about 6·5 per cent.; and in Ottawa of over 34 per cent.; that in Quebec and Hamilton there were fewer deaths in the last quarter than in that of 1887, and that in Toronto, Quebec and Hamilton, there was a lower mortality from diphtheria, and also in the totals from all zymotic diseases in this year's first quarter than in last year's while in Montreal the mortality from these causes in this year's quarter was much more than double that of last year's, and in Ottawa it was just 50 per cent greater.

These are highly important facts which it would be, or might prove to be, calamitous to be deprived of; and they cost but a comparatively small sum.

True, every session of Parliament considerable opposition is manifested toward this system of statistics, and chiefly by some of the medical members. For the most part, we are persuaded that this opposition arises from a conscientious desire for a more comprehensive and perfect system, and not from a desire to abolish the present one until a better is provided for, as some appear inclined to believe. It would, we think, be a serious retrograde step to do anything of this kind. From personal intercourse with many of the members and other persons, we are convinced that both parliament and the country; would now support an appropriation of money sufficient to sustain a well considered comprehensive system of vital statistics, embracing births, marriages and deaths for the entire country: either uniform throughout all the provinces, or which would but obtain the data, collected in each province by its own special means, and utilize the same through a Central Bureau for the benefit of the Dominion. It is greatly to be hoped that the Dominion government will set the example at an early day of providing for a Central Bureau of vital statistics, and especially in the meantime keep in force as thoroughly as possible the present system.

MISCELLANEOUS NOTES AND SELECTIONS.

DIPHTHERIA AND ENTERIC FEVER SPREAD BY CITY MANURE.

At meeting of the Philosophical Society of Glasgow, held in April last Dr. D. Pride read a paper on the spread of enteric fever, and possibly diphtheria, in rural districts by the use of city manure for agricultural purposes and gave corroborative instances. The Dr. said :—Within the last year or two, in my own neighbourhood—which is a hilly district of country—sporadic cases of enteric fever have cropped up at different times, and in places widely separated from one another, and under varying social surroundings; and during the recent summer, which was remarkable for great heat and long continued drought, a possible explanation of their origin presented itself to my mind. He then gives the history of some cases and continues: In the first place, the presumption strongly is that the patients imbibed the poisonous enteric germs with the water obtained from the well in the meadow. In the second place, to a moral certainty, this water derived the enteric germs from the city manure spread on the sloping field and immediately above the meadow. And thirdly, the conclusion amounts almost to a demonstration that, as this manure was brought from the city, it obtained its germs from the ashpits in some of the fever breeding centres of this great city. Sanitary authorities complain of the “supply of disease being sent from the country in milk.” But I fear the disease is no less frequently sent to the country in manure. Sanitary authorities all over the country are vigilantly on the alert to prevent the farmer sending disease to the city through his dairy produce, and rightly so. But I hold that measures should be equally taken to hinder the despatch of city manure into the country.

TUBERCULOUS MILK AND MEAT.—The following extract from a report to the board of supervision on tuberculosis, by Henry Littlejohn, M. D., Medical officer of health, Edinburgh, will prove of interest; This disease of cattle has only of late years attracted much attention. Recently the discovery of bacillus

in the tuberculous matter in the organs of the cow, especially in the udder, and also its detection in the milk of animals so effected, has led to fresh investigations. These have proved that this disease (similar to phthisis or consumption in the human subject) is communicable from cattle to some of the other animals, and presumably to man. Looking to the large annual mortality in man from phthisis and its allied tuberculous or scrofulous diseases the question of the possibility of the communication of tuberculosis by the milk drawn from animals affected with this disease, becomes one of great national importance. As yet however, no notice has been taken of this disease in any of the Acts of Parliament relating to maladies affecting the lower animals. Bovine tuberculosis is essentially a *chronic* disorder, and it may, as in man, last for years before it proves fatal. It may also, as in man, undergo a spontaneous cure. No fact is more remarkable than that there is no disease which is apparently so curable as phthisis. I hardly ever open a body of a person dying from an injury or disease, but traces of the previous existence of tubercle in the lungs are found, and it is apparent that this disease has been arrested and a cure effected. Similar cases are seen in cattle, but more seldom, as in this country, the animal is slaughtered for food before the process of cure can be completed. Bovine tuberculosis thus differs widely from cattle plague, pleuro-pneumonia, or swine fever—the disease specially named in Acts of Parliament. * * The primary symptoms of tuberculosis may easily be mistaken for various other disorders. Ultimately, however, emaciation set in. This alarms the farmer or dairyman, and the animal is hurried to the shambles before its leanness becomes so marked as to render its carcase unmarketable * * * * The two questions connected with this disease which have assumed national importance are (1) the limitation of the food supply from the prevalence of tuberculosis among our herds and dairy stocks and (2) the risk attending the sale of milk from tuberculous cows. *First.* So far as my own experience goes in my bi-weekly examinations at the Edinburgh abattoirs, the disease is largely on the increase, and similar

reports come from all parts of the country, and there can be no doubt that in all classes of cattle tuberculosis is now universally prevalent. * * * *

As to the *Second Question*, there can be no doubt as to the risk run by the community by the sale of milk from a dairy containing a single affected animal. Lately, the presence of the bacillus of tuberculosis has been proved to exist in the milk of affected cows, and such milk has been produced in open court.

A SANITARY CONVENTION and Meeting of the Executive Association of Health Officers will be held by invitation of the Mayor and Council at the town of Lindsay, Ont, on Tuesday, Wednesday and Thursday, the 14th, 15th, and 16th of August, 1888. As subjects of general interest to every city, town and village will be discussed and papers presented by eminent scientists, it is hoped that many places will be represented. Lindsay offers many advantages and is a railroad centre easy of access. Sturgeon Point hotel, a delightful summer resort, situated a few miles from the town, is easily reached ; steamboats making connection with trains morning and evening. Reduced fares have been arranged on Canadian Pacific and Grand Trunk roads. Dr Burrows, Medical Health Officer of the town and President of the Executive Association of Health Officers, will doubtless do all in his power to make it pleasant for all who can go. Those wishing a pleasant time should visit Lindsay during the convention.

GOOD ADVICE.—Let our experience be to us a general guide in the application of remedies, but let us also recognize the fact that the nature of the food, its metabolism and that of the tissues, occupation, climate, inheritance, diathesis, temperament, education, the moral, social, and religious state, the action and interaction of all the bodily organs, constitute a powerful set of forces, which vary in each and every individual, and which must not be left out of calculation if we wish to avoid the disappointments and pitfalls which are incidental to slipshod pre-

scribing.—Dr. Mayes (Prof phila-polyclicnic) in a paper read before the Philadelphia College of physicians, April, 1888.

SANITATION IN MASSACHUSETTS.—This subject was prominently considered by Dr. H. P. Walcott, of Boston, in his Address in State Medicine at the meeting of the American Medical Association last month. The vital statistics of Massachusetts, he said, showed a declining death-rate for the last thirty-six years, under the influence of State sanitation. The most marked decrease had been observed in the mortality from zymotic diseases ; there had been a less decided reduction of that from constitutional diseases ; that from local diseases had increased ; and that from mental diseases and from violence had remained stationary. Typhoid fever had diminished most in cities having a good system of sewerage and water-supply, and least in towns without such improvement. Diphtheria which reached its maximum in 1877, had since declined until it now caused only one per cent. of the total mortality. Ovariotomy saved more lives than any other surgical operation, but taking Somerville as a basis of calculation, the ascertained results of preventive medicine had saved more lives in ten years, among thirty thousand people than ovariectomy would save in the same time among two millions. Great attention was given to small-pox, which had killed but 5,550 persons in Massachusetts in thirty-six years, and to cholera, which had destroyed only 2,000 ; but too little heed was given to scarlet fever with its mortality of 37,000 and to typhoid fever with its mortality of 45,000.

MILK JELLY.—As a variation in milk diet, the following (Am. Druggist) is recommended by Prof. Liebreich : Heat 1 quart of milk with 1 pound of sugar, and when the sugar is dissolved continue the heat, at a boiling temperature, for about ten minutes. Now cool it well, and then add, *slowly* stirring, a solution of 1 ounce of gelatine in a cupful of water. Next add the juice of 3 or 4 lemons and 3 wineglasses full of wine, brandy or liquor. Set the glasses containing the mixture in a cold place, so that the contents may gelatinize.

It is necessary to have the milk quite cold before the other ingredients are added, as it would otherwise curdle.

DR. FOLEY ON THE HAIR.—A proper comb is one whose teeth are even and regular, with points not sharp, but rounded. It should be held up to the light, so as to detect any splitting or roughening of the teeth on the sides; for if they are so roughened, injury to the hair through breakage of the shaft will result. Should the teeth through any cause become split, as you value your hair, the offending members should be carefully cut from the comb. Wire brushes are nothing more than combs. They act as a stimulant to the scalp, but are not equal to a good bristle brush. A good supply of oxygen is necessary for the healthy growth of hair; the head should be well aired. The hat has made sad havoc with many a caput. Endeavor to go bareheaded as often as possible. When walking, lift the hat off the head frequently, and, if the sun is not too strong, hold the hat in your hand awhile.

DR. FOLEY says, I have often thought it would be well if the barber would put his razor in a solution of carbolic acid after shaving each customer, and thus prevent the danger of infecting them with some dread disease, barber's itch, etc.

TYPHOID FEVER TRACED TO A DAIRY.—We all know that epidemics of typhoid are frequently traced to dairies, *Annals of Hygiene* says, but it does no harm to multiply instances that the lesson may be the more firmly impressed(?) A German doctor now reports an epidemic wherein he had 43 patients living in different parts of the city, who had nothing in common, save that they all used milk from the same dairy. There had been some mild cases of the disease previously at the dairy, and the evacuations from the patients had been emptied upon a dung-heap or into a cesspool which were in close proximity to the well from which the water was drawn to wash the milk cans.

THERE is a vast field needing cultivation in the application of hygiene to therapeutics. The comparatively new method of the dietetic treatment of disease offers us remedial agencies which certainly approximate to exactness in method and surety in result.—Prof. Barthlow, at last meeting of the Am. Med. Assoc.

OPIUM smoking seems to be one of the dissipations indulged in by a few Harvard students says the Medical and Surgical Reporter. One of these opium smokers was recently found dead after smoking a pipe, and is supposed to have died of opium narcosis.

• DR. STEIGENBERGER reports (in *Cent. fur Therapie*) a case of a six months old boy, of good family history free from tuberculosis, who began to develop a lymphatic swelling near the jaw, which was found to contain tubercule-bacilli, caused doubtless by the milk from a wet nurse, whom the child had sucked, and [who was afterward found to have tuberculosis.

THE yellow fever in Florida is now said not to have been brought by the usual trade channels, but by smugglers. The disease has now been stamped out.

THE Supply Bill of the last N. Y. State Legislature contains provision it is said, for spending about \$225,000 on the New York quarantine establishment;—for general repairs, a new hospital ship, repairing the docks, Hoffman Island, the boarding station, the Health Officer's residence and for a new tug.

A NEW DISINFECTANT.—E. Laplace (*Pharm. Zeitung in Drug cures*) recommends crude sulpho-carbolic acid as a reliable bactericide and as a general disinfectant, inferior only to solutions of bichloride of mercury of the same strength, but having the advantage of being much less poisonous and considerably cheaper. It is obtained by mixing equal parts by weight of crude sulphuric acid and crude twenty five per cent.

carbolic acid, heating for a short time, and allowing to cool. This mixture is easily soluble in water. A four per cent. solution killed anthrax bacilli within forty-eight hours, which a two per cent. solution of pure carbolic acid was not so able to do.

HEALTH OF NEW YORK AND LONDON.—The death-rate of London is about 20 per 1000, while that of New York is about 26. Dr. Tracy, Register of Records of New York, states that the excess of mortality in New York, as compared with London, is due chiefly to diphtheria and croup, diarrhoeal diseases, phthisis, and kidney diseases. That if the death-rate from these diseases were the same in New York and London, the mortality from all other causes remaining as at present in both cities, the general death-rate in the two cities would be almost precisely the same; And that the overcrowding in New York (16.37 persons to a dwelling in 1880, as compared with 7.8 in London), and the trying climatic conditions, render it very improbable that the death-rate of this city can ever be reduced as low as that of London.

An important point in vaccination is suggested by the Medical and Surgical Reporter. On account of the danger of inserting into the circulation from the arm of the patient, dead, or possibly decomposing, epithelium, the site of vaccination should be well washed with soap and water, with brisk rubbing, and an antiseptic used. To vaccinate an unwashed arm ought to be regarded as an error in practice.

IN the Lancet (March 24) Dr. Harley sums up the effects of even a moderate, or we suppose, what is usually regarded as a moderate, use of alcohol upon a diseased heart or blood vessels. He impresses upon all such patients to pay strict attention to what he calls the following three golden rules: (1) Take exercise, without fatigue; (2) Nutrition, without stimulation; and (3) Amusement, without excitement.

KILLING IN FUN.—We fully agree with the Times (N. Y.) in the following extract. "It is time that some effective means were adopted for putting a stop to the idiotic practice of pointing firearms at people 'in fun.' A statute that should define as a misdemeanor the pointing of a gun or a pistol at any person, under any circumstances except such as would justify shooting, would be in the public interest. If homicide should result from a violation of the law, it should not be reckoned excusable homicide, which it is not, but manslaughter. A few convictions under such a statute would inculcate upon everybody a lesson of which many people stand in need."

PRECAUTIONS AGAINST BAD MILK IN MILAN.—The British Medical Journal states that a dairy has been opened in the public gardens in Milan where every possible precaution will be taken to ensure absolute purity in the milk and cleanliness in its distribution. All the cows are to be under the strictest veterinary supervision. Their temperature is to be taken every morning; minute directions are given as to the food of the animals, and the milking is to be done in public. This interesting ceremony will take place twice a day at fixed hours, duly notified to the public.

IMPORTANCE OF COOKERY.—Count Rumford said: The number of inhabitants who may be supported in any country upon its internal produce depends as much upon the state of the art of cookery as upon that of agriculture; but if cookery be of so much importance, it ought certainly to be studied with the greatest care. Cookery and agriculture are arts of civilized nations. Savages understand neither.

PROHIBITORY LAWS.—A law has been passed, an exchange states, in Waldeck, Germany, forbidding the granting of a marriage license to a person addicted to the liquor habit. The Austrian Government has introduced into the Reichsrath a strong measure for the prevention of drunkenness. The reason alleged is the alarming deterioration in the physique of young men enrolled for military service.

THE EDITOR'S SPECIAL CORNER.

ON RESTORING THE APPARENTLY DROWNED.

Hundreds of lives will be lost during the next few months from accidental drowning. More wide spread knowledge on prompt means for restoring animation after immersion for some time in the water might save many lives : Every man and woman and every big boy and girl ought to be familiar with the process for restoring the apparently drowned. It is easily learned and remembered. Young men and others might profitably practice it on each other.

Many lives are lost by not PERSEVERING in efforts to save. We read of a body having been taken from the water and of efforts made to restore life, but these efforts rarely, so far as we can learn, last more than for a few minutes or at most half an hour or so. Sometimes too after immersion for half an hour or even fifteen minutes it is thought useless to attempt restoration. This belief is a fatal error. Consciousness and signs of life have been sometimes restored only after long and persistent efforts. And in some cases, this result has been brought about after immersion in the water for more than half an hour ; and there are recorded (although not well authenticated) cases of restoration after several hours of immersion.

In an authentic report of the establishment for the recovery of drowned persons at Paris, out of twenty three cases restored to life, one had been three quarters of an hour under water, four had been half an hour and three a quarter of an hour.

Persevere for hours in efforts to restore. At a meeting, thirteen years ago this July, of the Michigan State Board of Health, Rev Mr. Brook, of the State University, reported a case of resuscitation of a girl supposed to have been drowned. In this, efforts were continued for SIX HOURS before signs of life appeared ; but she was finally restored

HOW TO PROCEED :—After the body has been recovered, wait not an instant for shelter or warmth, but quickly lay it belly downward, and standing astride it, lift its middle at the waist and give a few jerks to remove water from the chest ; hastily wipe the mouth and nostrils and turn it back downward with shoulders raised by something under the head and shoulder blades—a folded coat, turf or a little mound of earth. Then, most important of all, imitate breathing—grasp the arms and raise them, from the shoulder joint, above the head and a little backward ; hold them there while one could rather slowly count one, two, three, to let air into the lungs ; next bring them down to the sides and a little forward and press them firmly on the chest while one could count two, to force air out of the lungs ; repeat these acts 15 to 20 times a minute. The tongue must be kept forward all the while—held with a dry cloth or two sticks or tied to the lower jaw.

An assistant may use a feather, smelling salts or snuff to the nostrils ;

apply hot cloths, bottles &c. to the stomach, chest, groins, legs and soles ; and any cold, wet clothing must be CUT away and the body roughly wrapped in warm blankets, when such can be procured : but this work must not interfere in any degree with the efforts to restore breathing, as above described.

Yes, young men at least might study a little and practice on themselves the artificial process for restoring respiration, and then when present at any drowning accident they would prove most practically useful.

Too little attention we fear has been given heretofore to the promotion of warmth in the body after it had been removed cold from the water. A great deal can be done in this way without interfering materially with the practice of artificial respiration which is most important. Recent experiments upon dogs seem to prove clearly that animation is more surely restored after severe exposure to frost, by taking the body into a warm room or placing it in a warm bath and restoring bodily heat as quickly as possible ; which is contrary to the popular belief.

Oxygen gas, which may usually be obtained from a druggist, having been successfully used in restoring cases of asphyxia from poisonous fumes, we do not see why it should not be serviceable after suffocation in water, if a little of it could be forced gently into the lungs.

Remember, PERSEVERE ; be not soon discouraged : keep up the alternate movements of chest expansion and contraction, and use every means to restore heat until breathing or a doctor comes. As soon as the power of swallowing returns, give a very warm, mildly stimulating drink.

SUMMER CARE OF INFANTS.—We are much pleased to have found that a large number of leading daily papers in both the United States and Canada gave to their readers our article in last month issue on the prevention of infantile summer diseases, and that consequently it must have reached hundreds of thousands of readers. As that article was lengthy and many papers if disposed could not well give the space to it, we propose to touch here briefly upon a few points which may be of practical use to many more interested parents and serve as a reminder to all.

Nearly everything, in the summer care of "little ones", is in pure air and a suitable diet. Find some spot where the child can breath only pure air and such too as will not contaminate its food ; germ contaminated food being the most common cause of summer complaints. During the infant's first summer, next to good, mothers milk or that of a wet-nurse whose history is well known and above suspicion, according to the latest and best authorities, such as the committee on diseases of children of the American Medical Association, is milk from a healthy, well fed cow, given to the child directly it has been milked and properly diluted, diluted little or much according to age. If not given immediately, while yet warm from the cow, as for the most part of course it cannot be, it must always be boiled. A thin decoction, long boiled, of fine barley meal, is much better than water for diluting the milk, as it ren-

ders the caseine less liable to coagulate in lumps or "curd" in the stomach. For the newly born, four parts of barley water should be added to one of milk, while for the baby of six months, equal parts of each may be given, always with a trace of salt and a little sugar. Milk sugar, obtained from a reliable druggist, is best. A good baby-food, nearly of the composition of human milk, and highly recommended, may be prepared as follows: To one-fourth of a pint of fresh cream add three-fourths of a pint of warm water, half an ounce of MILK sugar and from one-eighth to one-half pint, according to the age of the child, of good, new, cows milk.

Regularity in feeling is of much consequence. Every three or four hours is often enough. To nurse or feed a child every time it cries is a most injurious practice. Change the diet as little as possible. When a food seems to agree with it, give it not a taste of anything more. A teaspoonful of pure cold water, in the warm weather especially, should be given as often as the little one seems to like it or take it freely. A cool sponge bath should be given it daily, and thin soft flannel is best to put on next its skin. Be sure that its legs and arms are kept warm during the cool nights. Use a feeding bottle with only a rubber mouth piece and no tube, and see that all the food vessels are frequently and thoroughly scalded with BOILING hot water. Never on any account give any astringents or preparations of opium—paregoric, "soothing syrups" and the like, nor any medicine except under the advice of a competent physician.

THE OTHER SIDE OF THE PICTURE—THE COMFORTS OF STAYING AT HOME.—Those who think it hard that they cannot go to the country, the mountains or the seaside, but must spend the hot season in the crowded city, might derive some solace in enumerating the many annoyances and vexations they escape, but which have to be endured by the envied ones who can go away. Many there are to be sure to whom a change of a week or two is almost indispensable—a change of some sort or almost any sort, but a vast number go from custom, fashion, or yearn to go, who do not require any more change than their weekly routine brings them at home. Those who stay at home escape the smoke and cinders and dust of the crowded cars. They will not in the great "mountain houses" and seaside hotels, as Harpers Bazar, in a good article relating to this subject, gives it, be "tucked into little rooms like the bunks of a packet ship," whose walls are covered with cheapest paper or none at all; without a closet or wardrobe and too small for a trunk; with one window, without a screen, or perhaps with only a piece of netting through which gnats and other pests find their way and then "sing and sting at their will;" with "no hot and cold streams of cleansing and refreshing water," but only a meagre pitcher with not enough water for ordinary cleanliness; with "noises too, to be heard all night; noises of all sorts, of people laughing and singing till after midnight, regardless of any one else, of babies crying, of couples disputing loud voiced through thin partitions, of belated revellers returning down

long corridors with careless feet in the small hours, of doors slamming, of teams arriving, of bell-boys running to answer calls for ice water and of the watchman striding along every halfhour or so to see that the great wooden trap is safe still from the flames that one day or other are sure to devour it"; with the stifling heat in the little rooms worse than in tenement houses; no quiet, no retirement, no peace, indeed no comfort. At home, in the city, there is often more quiet, with other and numerous comforts of HOME; the parks, the boating and driving and little excursions. You who feel like "prisoners" at home, ponder somewhat over these things and be content.

ANNOTATIONS AND OBSERVATIONS.

ARSENICAL dry goods are not uncommon it appears; but highly dangerous. Dr. Griffard, the Medical Officer at Cooper's Hill, England, according to the British Medical Journal (June 23rd 88,) had brought him cases showing symptoms of arsenic poisoning; and in every case the source of the poisoning was traced either to a cretonne or to an imitation Indian muslin, used as a decoration. Forty-four samples of cretonne, supplied by a local tradesman, have been analysed by Mr. F. E. Mathews, and of these none were found free from arsenic; three contained only a trace, and twenty-one contained larger traces. The remaining samples all contained arsenic in poisonous quantities. Eleven of them were "very bad," and nine "bad" and "distinctly dangerous." One of the worst specimens yielded an amount of equivalent to rather more than $19\frac{1}{2}$ grains of white arsenic per square yard. Mr. Matthews adds: "It is quite a common occurrence to have enough of these substances in a room which would contain sufficient arsenic to give 100 people a fatal dose. As far as the analyses have gone at present, they do not show that any one color is more poisonous than another, as, strange to say, greens and blues, that would be the first suspected, have until now proved purer than reds, browns, and blacks. In the case of imitation Indian muslins, five samples only have been analysed, but they all contained arsenic in poisonous quantities.

At the Academie de Medecin, Paris, Mr. Worms read a paper in which he stated that he administered saccharin, in varied forms, to four persons suffering from diabetes, [British Medical Journal, June 16, 88.] One, after a course of two months, still suffered no inconvenience therefrom; but the other three, at the end of a fortnight, complained of loss of appetite, indigestion, and weight in the stomach, which symptoms continued for eight days after leaving off the saccharin. The doses were resumed in the case of one of the patients, and a return of the symptoms complained of took place at the end of ten days. This shows that it is dangerous to put saccharin into the food of anyone suffering from diabetes; and, moreover, that as it shows an indiges-

tible substance, the general employment of it might result in serious consequences to the public health.

TO TREATMENT of disease we rarely refer, but Dr. Jacobi, of New York, in a recent paper (in New York Medical Journal, June 30,) mentions a case to which wide publicity should be given in the profession ; while it gives hope to parents. It was a most severe case of diphtheria and involving the larynx, with stenosis, which he saw in consultation, and thought would be fatal. He recommended an hourly dose of one-fortieth of a grain of bichloride of mercury, which was taken for ten days, also nasal injections of the same, one grain to a pint. They were made hourly for many days, and altogether continued for more than a fortnight. She swallowed almost all the nasal injections, and great was my surprise, Dr. Jacobi said, when "after some weeks I received the report of the case and learned that about twenty grains of the bichloride had found their way into the stomach of the little girl. She lived, and had but little stomatitis and hardly any intestinal irritation." If the case does not prove anything else, it proves that even desperate cases may end in recovery. "This patient got well with the bichloride of mercury, and the case resembled all the other cases in this : that, after the rational and careful administration of the bichloride, local mercurial symptoms about gums, mouth, pharynx, and intestines are extraordinarily rare in infancy and childhood."

THE N. Y. Medical Record notes the practice of a writer in the Lancet of treating scarlet fever by carbolic acid. "This treatment the author has been using for several years, and in nearly three hundred cases. No case has been fatal ; only three cases of albuminuria, only one of glandular suppuration, and none of aural or nasal complications ; none of secondary fever or cardiac disease. A rapidity of recovery in severe cases not before seen has been obtained. To be efficacious, the acid freely diluted with water and syrup of orange peel, must be given early in the disease, at short intervals, and in full doses."

SARSAPARILLA is a drug, the Boston Journal of health says, which people generally believe possesses extraordinary powers as a "blood purifier," when, in fact, all intelligent observers agree that its value has been much over-estimated, and some maintain that it has no action upon the human system, and, therefore, no curative property whatever. Certain it is, that if it does affect the system at all, no one knows what the action is.

THIS reminds us that in seizing a large quantity of Ayers sarsaparilla and other of their cure all nostrums the Canadian Government did good service to the people of the Dominion by preventing the "spread" of the stuffs among them. Naturally enough the inconceivably wide difference between the cost of the imported ingredients with which the concoctions are compounded in the Dominion and the selling price of the prepared "medicines" aroused suspicion. The case was a fortunate one as it will help to rouse the public to a

knowledge of how they are imposed upon when they buy a dollar bottle of well diluted cheap drugs. The manufacturers will probably weigh well the consequences of further publicity in this behalf before seeking for it.

THERE is no better indication of the attractiveness of a place than that those who visit it once want to go again and again. In the lists of guests at the Caledonia Springs Hotel one finds, with many new names from year to year, many others who have been there many times before. The accommodations are hardly second to those of any hotel on the continent, and many visit it who want rest, recreation and good company. The waters have a high reputation, and the hotel is easy of access by the Ottawa River boats, or by rail, from Ottawa or Montreal.

AND any one visiting the Caledonia Springs, should not fail to "take in" the far famed Ottawa River, especially if they have not already done so. The River boats—the Empress and Prince of Wales—are unexceptionable in their appointments and management, as every one who makes the trip bears testimony, and we can hardly conceive of any one taking the trip and not being well pleased with it.

A MOVEMENT is being made we observe with the view of establishing another line of boats on the St. Lawrence. We trust success will follow. A line of good boats, well equiped and managed by competent, affable officers and providing a good "bill of fare," is much needed there.

The Queens Royal Hotel, at Niagara-on-t' e-lake, at the mouth of the Niagara River, is a branch of the "Queens," Toronto, and has the reputation of being a most attractive summer resort. There are Tennis and Croquet Lawns, as well as good fishing, bathing and boating. It is situated in a private park and public excursionists are not allowed on the grounds. It is a home-like family hotel; and of a high order, as any one knowing anything of Queens, Toronto, need hardly be informed.

IMPORTANT ANNOUNCEMENT—We are preparing to issue in September, first, 20,000 copies of our Magazine, in much more popular form, and at a reduced price, being determined to bring the gospel of health within the reach of all.

WE must INSIST, therefore, on all those at least who are two or three years behind, (and they form a small legion) "paying up," and at an early day. To many who are three or four years behind, we have sent accounts many times and intend to stop this and try some other plan.

ONE plan will probably be that adopted by a medical journal some years ago, of publishing the names of those receiving the paper for years and refusing to pay. In some of the states it is a criminal offence, larceny, punishable by imprisonment, for a man to continue to take a paper from a post office and not pay for it. We shall not attempt criminal action but purpose publishing names for the benefit of others.

To begin now : Nearly four years ago we received a \$2 subscription from Quebec, without a name. Several circumstances led us to believe it came from Dr. C. C. Sewell, who was not however on our list. We sent him the JOURNAL, with a p. c. explaining, and requesting him to notify us or RETURN the COPY if he did not send the \$2. We did not receive a line from him, nor a returned copy of the JOURNAL, which has been mailed regularly to him ever since. Yet he now refuses to pay, and we do not know, cannot learn, whether he or another sent the \$2. Dr. Sewell simply refuses, and states that he knows nothing about it. We shall have a number of sketches of somewhat-like practices to give soon.

THOSE still owing for last year and the present one will confer a favour (we will take it as such) if they will kindly remit as per accounts recently sent, and not put us again to the trouble and expense of another reminder.

MANY are yet behind for this year, who may still save the 25 per cent by remitting BEFORE AUGUST 1ST.

NOTES ON CURRENT LITERATURE.

IN St. NICHOLAS, for July, the distinctively Fourth of July story is "Ringing in the Fourth," by Huldah Morgan, a thorough "boys story," illustrated by the frontispiece and other strong drawings. Mary E. Vandyne, in "Aimée," tells a thrilling story, illustrated, of two young girls who were shut into a ruined villa by the earthquake at Nice. The inimitable "Brownies" in this number are engaged in the exciting amusement of 'kiteing.' The poetry and verses of the number are up to the usual high standard.

THE ILLUSTRATED LONDON NEWS, (Potter Building, New York) has had many attractive features during the month. Among them are "Our Coast Defences"; scenes at the recent Royal marriage at Charlottenburg; "Tableaux vivants at the Anglo-Danish exhibition"; "Young Ducks"; and "The Old, Old Story."

THE July CENTURY has for a frontispiece a portrait of Pasteur and his grand daughter, by a celebrated French painter. The picture is given in connection with a timely article on "Disease Germs and How to Combat Them," a foot-note to which gives a brief sketch of Pasteur's interesting career. The opening illustrated article is in Mr. Edward L. Wilson's series connected with the International Sunday School Lessons, and is on "Sinai and the Wilderness," profusely illustrated with pictures of the scenes of Bible events.

HARPERS admirable weeklies, the "Weekly" and "Bazaar," never lag in their usual high standard and in the past month have been no less interesting than usual, giving some excellent illustrations.

THE New York Medical Journal and Medical and Surgical Reporter (Phila) two of the best weekly medical exchanges which reach us, have both contained recently some very valuable medical lore.