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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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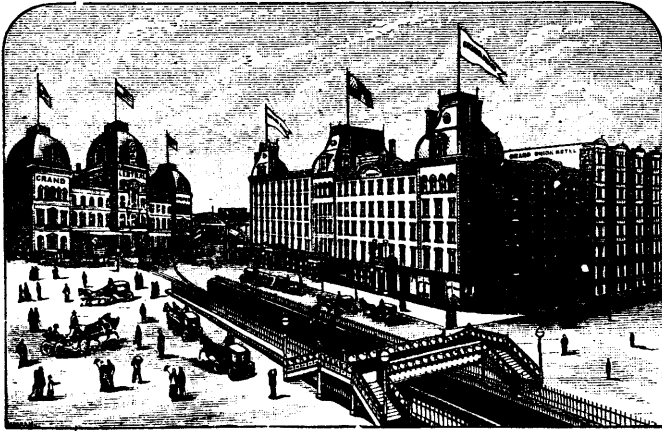
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# THE CANADA HEALTH JOURNAL.

VOL. 9.

FEBRUARY, 1887.

No. 2.

## DOCTORS AND PATIENTS—PREVENTION BETTER FOR BOTH THAN CURE—A CHANGE DESIRABLE.

IN referring to the "influence" of this JOURNAL "in elevating the profession and in modifying its practice," a correspondent in the *Orillia Packet* writes that "it will need a very high conscientiousness and sense of honor" for physicians "to advise patients to avoid sickness instead of paying for its treatment." "Many a time and oft," during the last twelve years, we have urged the great desirability of a complete change in the practice of medicine, and that physicians should be retained and fed rather to prevent disease than to cure it. One of the most eminent of the physicians of London, Sir Wm. Jenner, physician to the Queen, has said, "To prevent disease is the highest aim of the science and art of medicine," and his words have been reiterated, and indeed, acted upon, by many of his ablest confreers. We have said and written, time and time again, that there is no reason why there should not be a change in the practice, as indicated, and in a comparatively short time, and although it may not take place in its entirety in our time, it is sure to come about eventually, especially when it can be so easily shown that such change would be so decidedly mutually advantageous.

The proposed method of practice is generally regarded as a sort of "quack method," we know, but why so we can

hardly understand. It is true it has been practiced to a certain limited extent by unsavory hands; but it is virtually in practical operation in "lodges," benefit associations, railways, large manufacturing establishments, etc.

Now and then our views have been urged by others in the profession, and we never yet have seen anything worth mentioning urged or named against the method. At the last annual meeting of the American Medical Association, Wm. Hutchinson, A.M., M.D., lecturer on hygiene, Iowa College of Physicians and Surgeons, read an exhaustive paper on this subject. The following extracts from the paper, published in the journal of the Association, so accord with our own views, many times expressed, that we have pleasure in giving them, and trust they may give rise to some thought at least upon the important question, both in the minds of many of our readers who are not physicians, as well as in those who are. Dr. Hutchinson said: Is the system of making a physician's income from a family or community depend solely upon the amount of sickness occurring in it, the best that can be devised for the mutual interests of both parties concerned? Such practically is our system. Its philosophy might be condensed in the motto,

Millions for Cure, but not one cent for Prevention." . . . It seems to me that the weakness of our present system lies in this one fact, that it gives us such an extremely limited opportunity for what has been well called the practice of preventive medicine. No one thinks of consulting us until they at least "feel unwell," and in many instances not until days, or even weeks of precious time have been wasted or worse, in trying to "wear the trouble off," or in blindly applying every crude remedy which household experience, patent quackery, or superstition can suggest; all because they are "not sick enough to call a doctor"—in other words, don't feel uncomfortable enough to be willing to pay more than the price of a bottle of patent medicine for relief. . . . Would not a system of constant medical attendance, remunerated alike in sickness and in health, enabling us to give advice or treatment just when we see it is needed, even if unasked, and rendering professional counsel, not only in disease, but in health, the first thought, the easiest and most natural thing, the rule instead of the exception; would not such a scheme as this, if practicable, most happily modify the condition of affairs and prove a long step toward securing the health and happiness of the race?

Again, when installed in full charge of a case, are we even then freed from the perplexities of our financial system? Scarcely even then. How often are we annoyed, in the very midst of a serious case, when every shadow of change must be instantly noted and promptly met, by the remark of the family, friends, or even of the patient, that they "can't afford to have us come so often." When we reach the period of convalescence, another head of the hydra springs up to confront us:

"Really, doctor, I feel so much better this morning that I don't think you need call again until I send for you," is the remark of our wan-lipped and languid patient, blissfully ignorant of the hundred and one pitfalls which yet lie between him and health . . . . How frequently does the convalescent, dissatisfied with the slow and uncertain progress he is making, conclude with charming consistency that it is the fault of our treatment, "too much strong medicine," perhaps, and resort to some rival physician, quack, or vendor of patent medicines, to whom he ascribes all the credit of the cure. . . . . How many of our most serious and most obstinate chronic troubles spring directly from the half removed result of some acute attack! How often are the germs of evil which will curse generations yet unborn, left lurking in the system, simply because the subject thinks himself cured, and doesn't want to make his bill any larger! . . .

What influence does our present system of attendance give us over the sanitary surroundings, diet, or habits of life of our patients? Almost none. It is true we have the priceless privilege of giving any amount of excellent advice on these subjects, which they may perhaps remember for a week, though usually they regard it simply as a customary and harmless prelude to the prescription, which they regard as the "value received" for their fee. . . . Over the home life of our patients we have almost no control, or even supervision, until after the mischief (which often might have been averted by a few timely precautions) has been done, and even that ceases almost as soon as we began to exercise it. What sort of success would we expect from a nurseryman who was not permitted to prune his trees until they were already

misshapen, to destroy their infesting parasites until the foliage was withered, who was not allowed to water them till they began to droop, or manure them till they were almost exhausted.

. . . .

The plan which I would respectfully submit is briefly as follows: That at the beginning of the calendar year each individual or family should engage his or their medical attendant for the next twelve months, agreeing to pay him a specified annual salary in advance, either in full or in quarterly or monthly instalments. The physician on his part should agree to render any and all professional services required, except operations or manipulations requiring the skill and training of a specialist, for the annual consideration specified, which might readily be fixed according to some rate *per capita* or *per familiam* laid down in the fee bill. The physician should further agree, in consideration of the sum specified, to make an annual or semi-annual inspection of the sanitary condition of the house and premises of his client, and to offer such suggestions as he saw fit in regard to the diet or habits of life of himself or his family—in short to act as a general adviser on all matters of hygiene or therapeutics. The system might briefly, and, perhaps, not inaptly be described as a scheme of "health insurance." What are the advantages which seem to be presented by this plan? In the first place, our patients would have no inducement whatever to delay consulting us; in fact, moved by a not unnatural desire to get their money's worth out of us, they would probably hasten to do so at the earliest appearance of discomfort or danger, and thus give us full control of the case at that period in which a "stitch" properly taken saves, not "nine," but "ninety

and nine." We should have every opportunity to abate or favorably modify the attack, and it needs no word from me to point out to you the well-nigh inestimable value of this vantage-ground. Later, during the progress of the case, there would be not the slightest danger of any objection to the frequency of our visits; on the contrary, the difficulty would lie in exactly the opposite direction, and would constitute the principal drawback of the system. . . . .

Above all, it would give us a fair opportunity for the practice of the grand branch of preventive medicine, a privilege which under the present system is practically denied to us. . . . In spite of the utter lack of pecuniary or even honorary inducement, in the face of sneers at his "pretended" zeal, to his everlasting credit be it spoken, the American physician is to-day the truest promoter of the health of the people, the most earnest and, I had almost said, the only persistent advocate of sanitary measures; but would not the "health insurance" system, if generally adopted, give a new dignity to his labors and immensely increase the scope of his energies?

Would not this system also do much to break up that unfortunate mental habit impressed upon us from earliest infancy, which involuntarily connects the doctor with discomfort and bitter medicine, if not with the undertaker and the sexton?—a habit whose influence upon the popularity of the profession, though slight, is sometimes unpleasantly appreciable.

The financial value of the scheme in rendering our incomes, not only more definite, but also more certain, are obvious, and the few figures bearing upon the subject which I have been able to collect, which I dare

hardly dignify by the name of statistics, render it at least highly probable that a rate *per annum* can be fixed which would be both satisfactory to the public and remunerative to us.

Now, just a word on the drawbacks of the scheme, though it is probably a subject which might safely be left to those who are to follow me. No doubt the objection which is already uppermost in the minds of most of you is the enormous and unreasonable demands on our time which would be made by some of our patients under this system. . . . In the first place when entering upon the agreement we should give our patients to clearly understand that they were engaging us, not to be simply medicine-carriers, or visit-makers, but to advise them to the very best of our judgment, and that the question of the necessity of the visit must be left largely to our discretion. Then the tenure of our professional position being so much more secure, we shall be able to treat these unreasonable cases on a much more rational basis. . . .

But perhaps the most practicable objection would be based on the probable unwillingness of the laity to pay any sum in advance for services which they

are not even sure they are going to need; but even this objection loses some of its force when we consider the almost innumerable number of lodges, guilds, and benefit associations into which not only the educated, but even the most unintelligent classes are forming themselves for just this kind of mutual protection. When we further consider that scarcely fifty years ago life insurance was regarded as not only absurd and impracticable, but even impious, while now men of every condition are willingly paying from \$10 to \$1,000 a year solely for life insurance, it would scarcely seem improbable that their education up to the point of paying the comparatively trifling sum necessary for "health insurance" would simply be a matter of months or years.

Dr. Hutchinson concludes with some statistics from practitioners ledgers to show an approximation as to what would be a fair remuneration for the different sizes and classes of families to pay to the physician.

This whole question is one which might well be brought before the Canada Medical Association. Indeed we have repeatedly thought of doing so, but deferred it.

#### HEART DISEASE—A LESSON FROM THE LIFE OF THE LATE EARL OF IDDESLEIGH.

**T**HERE is a very prevalent and abiding horror of heart disease. It is but natural that disease of the great centre and regulator of the circulation of the blood throughout the body should give rise to alarm in one suffering from such disease. Actual disease of the heart is not nearly so common as appearances indicate. In a great majority of the cases in which there is palpitations of the heart, that is unduly violent beating of the organ, and pain in the

region of it, there is no heart disease whatever. Indeed, functional derangement of the organ, as a rule, gives rise to more marked symptoms, such as above named, than actual disease of it.

There is a sort of law of compensation prevailing in the different organs or parts of organs in the body, by which, when any structure fails, from disease or otherwise, other parts, as it were, come to the rescue,—not only adapt themselves to the changed condition

but endeavor to compensate for the failure in the defective part. This is notably the case as concerns the heart. When any portion of it becomes pathologically changed, other parts soon so adapt themselves to this change as to enable the organ to carry on its functions in a fairly satisfactory manner. Many a man and woman too lives from early adolency, or even youth, to over the "psalmist's allotted period" with a diseased heart. Such persons must live a comparatively quiet life, and avoid, not only violent action of the heart or anything like violent exercise, but also, and especially mental anxiety, worry and emotion. Instinct usually teaches them this, though not always.

We would advise anyone with suspected heart trouble to consult a well-known, reliable physician and follow his advice. It is well not to accept too readily the verdict of heart disease, nor to make a marked change in established habits of life. The following brief history, of the life of the late Earl of Iddesleigh, chiefly from the *British Medical Journal*, affords an interesting illustration of what a man with a diseased heart may accomplish in a lifetime. The sudden death of the Earl, "under circumstances and at a moment which gave to the event a peculiar dramatic interest," the *Journal* says, "will probably tend to strengthen the horror of disease of the heart which is so deeply engrained in the public mind. In reality, however, the history of his life teaches a quite different lesson, and affords a striking confirmation of the truth of the view so admirably maintained by Sir Andrew Clark, Professor Gairdner, and many other distinguished physicians, during the meeting of the British Medical Association at Brighton last autumn, that disease of the heart, when it has passed into a quiescent

state, and when there has been time for complete compensation to be established, need not in any way interfere with a useful career."

From early manhood the Earl had been known to be the subject of chronic disease of the heart. As a young man he was possessed of great physical powers. He was a bold horseman, a noted oar, and an adept at many other athletic exercises. An attack of acute rheumatism at that period of his life, however, involved the heart, and, in conformity with medical opinion of that day, he was forbidden to engage in active pursuits or to enter the political arena. There is good reason to believe that, for the last forty years of his active life, the mitral orifice, or the valves at this opening of the heart, had been damaged. It was for this reason that he made no effort to obtain a seat in Parliament, and was content to remain in a subordinate capacity, that of secretary to Mr. Gladstone, for so many years. In 1855, when he was thirty-seven years of age, he determined to disregard the unfavorable opinions which had been given, and entered Parliament as member for Dudley. How fully this step was justified by the consequences it is hardly necessary to say. For the quarter of a century which followed he was not merely able to discharge his official and Parliamentary duties in a manner which won him a leading place in English politics, but it was a matter of observation, both with the medical attendants and with his family, that when most actively engaged in political work he was in the best health. For the whole of that period of his life he was a striking example of the positive advantages of entirely neglecting and putting out of mind the existence of heart disease of the variety from which he was suffering. But,



about three years ago, possibly in association, if not in consequence, of political events which then occurred, his health began rapidly to deteriorate. About that time signs of obstructive disease of the aortic valve appeared; this, of course, entirely changed the prognosis of the case, and was a source of great anxiety. In addition, he also began to be troubled by symptoms of a chronic nervous malady, affecting the arms. Never at any time, however, were there any symptoms of affection of the brain; and up to the last moment of his life he retained his mental faculties unimpaired. During this last period too he suffered from fainting fits which commonly occurred after luncheon, and were associated with giddiness, though he himself believed he never entirely lost consciousness. The fatal attack, too, occurred just after this meal, and when he was laboring under considerable emotion. He had been, it appears, for some years aware of the

serious turn which the old standing disease of the heart had taken. "He was a man of an exceedingly sensitive, though not nervous, temperament, and there can be no doubt that recent political events had produced a state of mental depression, which, however, was greatly relieved when, under the advice of his medical attendants, he accepted office as Foreign Secretary in the present Government. During the autumn his health was fairly good, but the rearrangements necessitated by the crisis undoubtedly caused him much anxiety."

From the above, both physicians and patients may learn a useful lesson. With "active political work," not requiring much physical exertion, the Earl was in the "best of health;" with mental depression and anxiety he was physically weakened and in danger. So it is with all others affected in like manner. Such indeed is the influence of the mind over the bodily functions.

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#### HEALTH OFFICERS AND THE WATER SUPPLY IN SMALL TOWNS AND COUNTRY PLACES

THERE are few, if any, ways in which the medical health officers in small towns, villages and rural districts, can accomplish more good than in inducing the people to look well to their water supply. In this work, which—where there is no special public water supply—implies cleanliness of the soil, and in the careful isolation of all persons affected with any infectious febrile disease, to which we refer on another page, a great deal may be accomplished in the prevention of the worst forms of disease. Impure water and the spread of infectious diseases are very fruitful causes of death. In England there has been organized work for improving the water supply of "country places."

Something of this sort is much needed in Canada. With the universal privy system it is almost impossible to have pure water anywhere. The excremental matter with every rainfall is washed into the soil, whence it percolates into the nearest well. As an illustration of what is doubtless too common in this country, we give the following instance (*Brit. Med. Jour.*, Jan. 29, '87) of a recent outbreak of typhoid fever in France:

At a recent meeting of the Academie des Sciences, M. Brouardel read a note on an epidemic of typhoid fever which broke out at Pierrefonds in September, 1886. During two months, twenty three persons from Paris and Versailles

came to live at Pierrefonds in three contiguous houses, situated in the Rue du Bourg. Twenty of these persons were attacked with typhoid fever. The water consumed in these houses came from under a stratum of clay, which was covered to the depth of two or three metres with very porous sand. To get this water, it was only necessary to dig holes in the form of wells. Under these conditions, the neighborhood of the wells to the leaking cesspools insured the permanent mixing of excremental matter with the water serving for domestic use. On the other hand, when heavy rains came on, the water from the roofs diluted the matter in the cesspools, carrying it into the surrounding earth. Twenty days after each heavy rain a new centre of typhoid fever broke out in one of the three houses. The water, therefore, appeared really to have been the vehicle of infection. But, in order to demonstrate this fact, M. Brouardel requested Dr. Chantemesse, director of the Bacteriological Laboratory of the Faculty of Medicine, to examine it. In that belonging to the house where five deaths from typhoid fever had occurred, MM. Chantemesse and Widal found the bacilli, considered by Eberth, Gaffy, Artaud, Cornil, and Babes as pathogenic of this disease. They were unable to discover these micro-organisms in the water from any other well in Pierrefonds. With the view of establishing the specific character of these bacilli, the spleen was punctured with a disinfected trocar, in patients suffering from typhoid fever, on the tenth day of the disease. The drops of blood thus obtained gave rise to colonies of bacilli identical with those in the water from Pierrefonds, the noxious nature of which was thus conclusively proved, while at the same time, according to M. Pouchet,

it was very free from organic matter. This latter observation shows that the bacilli may live for a long time in the ground.

In the report of the above it is stated that, in France as in England, polluted drinking water is being every year more clearly recognized as the most ordinary efficient cause of typhoid fever. In Canada, as we have no such special official investigations, we can only surmise that such is the case—that polluted drinking water is the most common cause of this disease, which destroys the best of lives, commonly, at the most useful age. But what physician doubts that such is the most common if not almost the sole cause of this prevalent, fatal disease? The remedy then, the sure preventive measure, is not difficult of application; and it is largely in the hands of the municipal health authorities. In many localities in this country the precise conditions as to the soil exist which existed in Pierrefonds, and where such do not, other conditions or formations may be but little, if any better.

We would urge upon health boards, even those in the townships, to institute a system of inspection, and to endeavor to persuade or compel householders to look after their well water. It must be remembered that chemical analysis will not reveal the infection of typhoid; and it appears that the infection may escape detection by the microscope. The only certain preventive is in avoiding the possibility of contamination by doing away with all collections of excremental matter. When we think of it, it seems indeed a marvel that the human family ever fell into the habit of allowing such collections of filth as of the universal privy vault. This must be strongly condemned everywhere. There are but few heads

of families, surely, who could not be persuaded, on proper representations being made as to its danger, to adopt some other form of daily disposal of the excrement, as by mixing it daily with abundance of dry earth or coal ashes, and having it repeatedly removed. Even when so mixed, it should not be allowed to accumulate largely, and great care should be exercised in the proper disinfection or destruction of all excreta from patients suffering from infectious disease. All solid house refuse should be burned, as it may readily be, in the kitchen stove. Sink slops should be conveyed to a safe distance and distributed evenly onto the soil. In the next number of the JOURNAL we shall endeavor to give the domestic process adopted by Col. Waring, C. E., at his own home, for the disposal of kitchen

and other slops in the garden soil. Barnyard manure must be looked to in order that it cannot contaminate the well water. There is a good deal of evidence that from barnyards and stables comes the diphtheritic poison. In many conditions or formations of the neighboring soil a barnyard may easily contaminate a well a long distance away. Barns and stables on farms are often badly located. In towns and villages there must be more frequent removal of the stable accumulations. Those who have horses might, without much difficulty, remove it daily. The present system of disposal of waste matters, or, indeed, of not disposing of them at all, costs yearly thousands and thousands of lives. Health officers can do much to bring about a change.

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#### IMPORTANCE OF ISOLATION IN INFECTIOUS DISEASES.

IT is difficult to account for the indifference so universally manifested toward the only sure remedy we possess for preventing the spread of infectious or epidemic diseases, namely, complete isolation. Upon the spread of some of these diseases, notably small-pox, scarlet fever and measles, other sanitary measures, such as drainage and water supply, do not appear to have much influence (although such measures doubtless lessen the susceptibility or receptivity of the people to such diseases), hence the great reliance must be upon separation. When in the present state of knowledge of the nature of epidemic febrile or zymotic diseases any one, parent or physician, having charge of a patient suffering from any one of these diseases, is guilty of criminal neglect if he fail to isolate the patient in the most complete and careful manner possible in the circumstances, in order

that there shall be no direct, and as little as possible of indirect, communication between the patient and all other persons not completely protected from the disease, as by a previous attack or by a vaccination.

The practice of isolation, more or less complete, is yearly becoming more and more common with physicians. Municipal and health authorities, however, are very liable to be indifferent about making provision for this prophylactic, in times of health. We need hardly write a word to intelligent people on behalf of the principle of isolation. Its value in practice must be apparent to every intelligent person. It can only be through neglect that it is not almost universal. The feelings of parents who have not efficient means for isolation at their own home, and who are naturally averse to the removal of a child at a critical time from under

the parental roof, must be respected, and ought to be yielded to as far as it is possible in every way so far as seems clearly consistent with the safety of others. But when one thinks of the possible, and indeed probable, consequence of carelessness in regard to this measure—that another may, through neglect of careful isolation, be exposed to a sometimes fatal disease and die of it, and another and another, until the lives of perhaps scores and hundreds and even thousands may be sacrificed by the neglect, one should put aside personal feeling. That spirit of fatalism, which has led to a disinclination to take the necessary trouble to prevent the spread of a disease which it was thought would come and go by some law over which human agencies could have no influence, though one of the greatest obstacles in the way of sanitary improvement in past times, can hardly now have much influence in this enlightened age and country. There can be but few who cannot understand that by persistent isolation, with other sanitary improvements, infectious epidemic diseases, as well those more peculiar to childhood as others, could be in time so completely “stamped out”

as to be almost unknown. True, there are many people who retain the idea that children must almost necessarily have scarlet fever, measles and such like diseases, and that the sooner they have such over the better, but a decided medical opinion in opposition to this would usually set such people right.

Many instances have been given in this JOURNAL of the immediate suppression of outbreaks of epidemics by prompt and complete isolation. At the last annual meeting of the British Medical Association, in Brighton, in the section of public medicine, Wm. Squire, M. D., F. R. C. P., etc., read a paper on the influence of increased means of isolation in checking the prevalence of scarlet fever in London. After drawing attention to the recent marked decline in the mortality from this disease, he said, “It may be premature to attribute the recent remarkable reduction in our small-pox and scarlet fever epidemics exclusively to our efforts toward isolation, but it is well to call attention to the coincidence.” It is most desirable that all health authorities should give due attention to the importance of isolation in public sanitation.

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#### THE COST OF LIVING—ECONOMY IN THE FOOD SUPPLY— HOW MONEY MAY BE SAVED.

THE objects to be attained in taking food, the intents of eating, may be regarded as two in number: one, that of providing nutrient matter for the sustenance of the body; the other, that of gratifying the palate or taste. One of the objects must be fulfilled in order to sustain life; the other is a dispensible gratification. Man was made to earn his bread, even “by the sweat of his brow,” he has learned to earn vastly more than the essential

bread. A reasonable gratification of the tastes, appetites and passions is doubtless not only legitimate, but necessary to the proper development, elevation and perfection of mankind; and this, even as it relates to the gratification of the palate. That man is regarded as not doing justice to himself nor to his family nor society, and as a lazy, idle creature, who labors only enough to provide the very simplest, plainest and cheapest food for his house-

hold, and idles and "smokes" the remainder of his time. But is not he a fool who labors incessantly ten, twelve, or it may be sixteen hours a day, not giving himself time to eat properly food for his own sustenance, or to get sufficient sleep or recreation, or perhaps to keep himself clean, in order to provide luxurious food to gratify the palate of himself and family? Such are, it is true, sketches of the two extremes in practical life. But are they not sketches of real life, to be not infrequently met with? Much more frequently may be found, yea, and they may be found in thousands, men who labor incessantly, except odd days or brief periods when work is scarce, and earn fair wages or salaries, all of which are consumed by themselves and their families and chiefly in providing food alone. Scant indeed are the pleasures that come in their way, not even have they the satisfaction of feeling that they are "laying by" a trifle for old age. Life for them has no really bright side, all is gloomy and discouraging. There are few families of this class, or in fact of any other class, who could not subsist, and just as comfortably and pleasantly, with an outlay for food not greater than half what it usually is, if the art of economy in the purchasing and cooking of food were universally understood and practiced. The cry is, "food is dear," or that the poor cannot save a penny from their earnings, or pay their rent, it takes nearly all for food. This is true, if they are not satisfied with plain food and will have luxuries.

Numerous experiments are now upon record by which it has been proved that human life can be sufficiently and comfortably sustained at much less cost than has usually been considered necessary for the purposes of life. This fact opens a vast field for social

reformers; a prospect of future savings in labor and money too enormous for calculation.

From data gathered by Mr. Atkinson and widely published last year, the costs of food in the United States, for mechanics and servants, averages about twenty-four cents per head per day—in a Maryland town twenty cents and in a Massachusetts town about twenty-eight cents. This sums up to about \$86.00 per year. A family of five at this rate spend for food alone \$434.00. This includes meat, poultry, dairy produce, fish, eggs, flour, meal, vegetables, sugar, syrup, tea, coffee, fruits—fresh and dry, salt, spices, ice, etc.

We would not deny to these people, nor to any one (except to criminals in the prisons) any of the luxuries in this bill of fare, if they prefer to buy them and suffer in other ways, but we would suggest that if they were taught how they might live just about as comfortably on say, at most, half that outlay for food, many or all would learn eventually to practice such economy and be a great deal happier and more independent; besides, while enriching themselves, they would add much to the wealth of the country. More than all, they would be all the healthier from the use of plainer food and have more leisure for recreation, pleasure and for mental cultivation and improvement.

A philanthropic clergyman in England, the Rev. Moore-Edo, rector of Gateshead, has long devoted his attention to the best mode of providing the most nourishing meals at the lowest possible price. "The success that has attended his experiment of providing a good meal for the very poor at the low charge of one penny, and a very substantial one for twopence, has excited the surprise and admiration of all who have enjoyed the privilege of

seeing the efficient manner in which this feat is accomplished." The rev. gentleman has not allowed his energies to flag with his first success, feeling convinced that much unnecessary expense and waste are incurred by bad cooking. He has received support which has enabled him to form a Public Restaurant Company, and to practically demonstrate that a really excellent dinner can be provided for sixpence. It consists of two substantial slices of baked beef or mutton, accompanied by boiled potatoes, carrots and bread; this is followed by a second course of a thick slice of raisin-pudding with sauce, all served in a cleanly and appetising manner.

In Birmingham there is a penny dinner organization. As shown by the report of the committee's work for 1884, 33,860 dinners were provided for 30,840 pence, including all the expenses; or for 17,940 pence, reckoning only the cost of the food—but little more than one half-penny each. Two courses are given—stew or bread and milk, or bacon sandwiches, and bread and jam.

In London there is an organization for furnishing poor children with a dinner for a penny, and from a recent published report it seems to have proved a successful experiment, in a pecuniary as well as philanthropic sense. Another society has undertaken to furnish dinners to poor children in the poorest and most populous part of London for half a penny. The children who take their meals at the penny establishment, it is said, show a marked improvement in health, are more regular in attendance at school, and accomplish better work in their studies than when they commenced their new regimen. The bulk of the ingredients is vegetables and bread, potatoes and

peas holding a prominent place. Fresh meat and milk are used in moderate quantity.

It is calculated that each child receives about twelve or fifteen ounces of soup or other kind of nutriment each meal, and this quantity contains from one to one and a half ounces of meat. The children enjoy their dinners, and appreciate the kind attention they receive. Of the half-penny dinner, the first course consists of a rich stew or bacon sandwiches, the second of bread and jam or bread and cheese. That the children find the dinner ample to satisfy their hunger is shown by their continued attendance and the little waste made. It is estimated that, with the cook's wages, cost of gas and implements excepted, there is no loss, and that they can be made self-supporting.

A Mr. T. R. Allinson, who is seemingly a physician, wrote some time ago to the *London Times* his personal experience in a simple, inexpensive diet, as follows: A little over a month ago I determined to give up all expensive articles of food and live almost as cheaply as possible. Having left off flesh foods for nearly two years, and lecturing frequently on the question of food, I knew what to select. Looking over my food accounts I found milk, butter, eggs and cheese, with tea and coffee, were fairly expensive articles, and none of them necessary, so I gave them up for a time to see results. On October 19 I began my experiment; my weight was then 9 stone 8 ounces. I continued this purely vegetarian diet for a month, when my weight was 9 stone 3 pounds 12 ounces, or a gain of 3½ pounds. My friends said I looked well; I felt well, and did my usual work the same as ever. I walked from 10 to 15 miles daily, seeing patients or

taking exercise. Here is an account of my dietary, which cost me little more than sixpence a day, and I could easily live for less without luxuries: Breakfast consisted of a basin of porridge, made from a mixture of oatmeal and wheatmeal, which I found more palatable than either singly. This I usually ate with bread to insure thorough mastication. Then came bread fried in refined cotton seed oil, or fried vegetable haggis. For drink I had a cup of cocoa or fruit syrup, with warm water and sugar. Dinner consisted of a thick vegetable soup and bread, potato pie, savory pie, vegetarian pie, vegetable stew, stewed rice and tomatoes, etc. For a second course I had bread plum pudding, stewed rice and fruit, baked sago, tapioca and apples, stewed prunes, figs, raisins and bread. The tea meal consisted of bread and jam, stewed fruit, or some green stuff, as watercress,

celery, tomatoes, etc. I had only three meals a day, and frequently, when very busy, I had only two, and cup of cocoa and a biscuit for supper. I always use the whole-meal bread. The cottonseed oil is a cheap and good cooking oil, and is impossible to detect.

It is clear that in England where bread (the "staff of life"), meat and many other foods are more costly than in this country, that a man may live comfortably on much less than half what is estimated by Mr. Atkinson as the average cost in the United States, and which may fairly be taken as about the average in Canada. If five millions of Canadian people could each save twelve cents a day in the outlay for food, there would be a total saving in the year of over two hundred millions of dollars, or more than enough, it appears, to pay the national debt, at which some appear terrified.

## THE RELATIONS BETWEEN SANITARY SCIENCE AND THE MEDICAL PROFESSION,

BY NATHAN ALLEN, M. D., READ AT THE FOURTEENTH ANNUAL MEETING OF THE AMERICAN HEALTH ASSOCIATION, AT TORONTO, CANADA, OCTOBER 5, 1886, CONCLUDED.

DR. Austin Flint, of New York, was invited last year by the British Medical Association to give an address this year before that body. Dr. Flint died suddenly in March, but his address, by singular forethought, was found prepared for this occasion, which has since been published. The very title of the paper is significant,—“Medicine of the Future.”

No physician in the United States could discuss this subject with greater propriety and force than Dr. Flint, and, inasmuch as he was to voice the medical profession in this country before the highest medical body in Great Brit-

ain, it shows the importance he attached to this subject in its selection. At the same time, in presenting these views, he must have been pretty well assured that they would be cordially received by the leading members of that association. After recounting, in the forepart of this address, the changes that had taken place in his own experience in medical practice, he says: “We are entering upon a revolution in medicine. It is bewildering to project the thoughts into the future in order to foresee the changes which will be brought about in the coming half-century in our knowledge of the correction of diseases

and the results as regards their prevention and treatment."

He expresses the opinion that hygienic agencies will be employed hereafter far more than they have been; that the normal conditions of health and the recuperative powers of nature will receive greater attention, and less dependence will be placed upon drugs and other artificial means. In referring to bacterial etiology, he says: "Here open to the imagination the future triumphs of preventive medicine in respect to all classes of diseases. When the medical profession," says he, "shall employ all the preventive measures possible and the best remedial medicines, disease will be more successfully treated, and the profession will have reached a high ideal position." Alongside of this testimony we will quote the opinions of three distinguished English physicians who have given special attention for many years to sanitary science.

Says Dr. B. W. Richardson: "The influence which sanitation will exert in the future over the science and art of medicine, promises to be momentous. It promises nothing less than the development of a new era; nor is it at all wide of the mark to say that such new era has fairly commenced. With the progress of sanitary science we must expect to see preventive medicine taking the ascendancy. With true nobleness of purpose, true medicine has been the first to strip herself of all mere pretences to cure, and has stood boldly forward to declare as a higher philosophy the preventive of disease. The doctrine of absolute faith in the principle of prevention indicates the existence of a high order of thought, of broad views on life and health, on diseases and their external origin, on death and its correct place in nature."

Says Dr. Alfred Carpenter: "The

science of disease-prevention is destined to alter the whole field of medical practice; to render obsolete much of our present knowledge as to the history of diseases and the measures which are now required for their treatment. The inquiry must come as to how the increase of disease is to be prevented, rather than, having arisen, how it is to be cured. This will apply to every kind of complaint, and will not be limited to any one class."

Says Sir Henry Acland: "In addition to treatment and cure of disease, whatever be the duty of individuals, medical science and art, collectively, must aim as a whole,—1st, At the preservation of health; 2nd, At the averting of disease from individuals and the public generally; 3rd, At rearing healthy progeny for the family and the state by probing the laws of inheritance; and 4th, At procuring legislation effectual to these ends. It holds a duty in relation to the diminution of vice, for the sake not only of self-destroying victims, but more for the sake of the innocents whom they ignorantly slay."

There is one method of preventing disease, referred to by Dr. Acland and other writers which has never received the attention it deserves—that is by the observance of the laws of inheritance. Within a few years this subject has been considerably discussed in the United States and Great Britain, but few seem to appreciate fully the magnitude of its bearings on sanitation. The diseases considered preventable,—of which there are nine or ten—come under the zymotic class, but there are two other classes, called constitutional and local, each larger than the zymotic. Thus far, sanitary science has expended its principal force upon these two classes, but supposing its agencies could be brought to bear equally upon



the prevention of diseases, what a vast amount of good it would accomplish! Let us explain. For many years there has been a class of diseases called "Hereditary," because the predisposing causes were inherited—because they are transmitted from generation to generation, and thus run in families. Now, if those ancestors were free from taint, or in other words, had perfectly sound and healthy constitutions, the seeds, the germs, the predisposing tendencies of disease would not be transmitted. Let us carry out a little further this line of argument. . . .

There can be no question but that in the inheritance of *morbid tendencies* we have one of the most fruitful sources of disease. This will become more patent in proportion as the principles of physiology shall become better understood in their connection with hereditary influences. Without attempting to describe the various ways in which the seeds of disease, or the predisposing causes, are transmitted from parent to child, we may say they are *manifold*,—in organization or function; in defective or abnormal structure; in the weak or excessive development of this or that organ; in the general want of balance in the organs, and of harmony of function; in the quality of the blood and the marked predisposition to certain diseases, like scrofula and consumption.

A class of diseases called "hereditary" have existed since the days of Hippocrates, and have always been considered difficult to treat, and much less to cure. Very little attention has been paid to these complaints by sanitarians, as it was supposed they could not be easily prevented. But this is a mistake; they originate from the violation of law by human agency: they can, then, certainly be prevented.

It is admitted by physiologists that all parts of the body can be changed by proper exercise and the law of nutrition,—some parts increased in size and strength more than others,—so that in this way a far greater measure of health can be secured. It is found that decided improvements can be made in the physical system during the life-time of an individual, and that in three or four generations the human constitution may reach a higher state of perfection. If nature has, therefore, established a physiological standard of health,—which is seldom, if ever, liable to disease,—and at the same time it is well understood this standard is attainable, should not the greatest possible efforts be put forth to secure and maintain this standard? It is here in this field where the germs (the seeds), the primary causes of a vast amount of disease, are to be forestalled. In this warfare with disease we have been content to lop off a few branches, leaving intact the trunk and roots. We have been battling the enemy in the outskirts, without attempting to take the citadel. Here is a great work for sanitary science; here this science is destined to reap its richest harvests. It may take time; but reforms in which the highest welfare of mankind are involved never remain stationary.

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A SWEET temper is to the household what sunshine is to trees and flowers.

PEOPLE seldom improve when they have no other model but themselves to copy after.

KINDNESS is stowed away in the heart like rose-leaves in a drawer, to sweeten every object around them, and to bring hope to the weary hearted.

## WHY THE WATER-CLOSET SHOULD NOT BE IN THE BATH-ROOM.

IN one sense, and probably the most popular one, that the bath is simply for the purpose of removing excrete and other foul matter from the skin, it does not appear singular that the water closet should always be placed in the same small apartment with the bath. There are many reasons why the closet should not be so located. These have been well given by Mr. W. N. Lockington, in a paper in the *Builder and Decorator*, which we give below, as follows: Modern houses located in cities contain a convenience, the names of which are too numerous for mention. Perhaps the French No. 100 is as good as any. "Retiring Room" is a euphemism which will meet the same fate as the once delicate word "privy," which signified a private retiring room. Whatever its name, we all want it, but we want it perfect of its kind, able by its mechanical construction to remove from us, without injury to our senses or our health, those matters for which the body has no more need.

Most modern houses also contain another convenience, to some extent a necessity, but in great part a luxury. This consists of a tub, usually resembling a coffin in shape, and capable of containing enough hot or cold water to cover the body. At its simplest a bath is a matter of cleanliness; but in its most developed condition it may be considered one of pleasurable sensations, and it is to be noted that unless the latter are received by the bather, he is much inclined to omit the bath.

No matter how carefully the privy, water-closet, retiring-room, or whatever else it is called, be constructed, the sense of smell will always find some offence there, and that of sight may at times have its delicacy offended. Since this is the case, the question may be asked, "Why is it usual to locate the

water-closet in the bath-room? Why is the bather condemned to have his sense of smell offended by emanations which proceed from matter excreted either by his own body, or those of other members of the family? What natural connection is there between a water-closet and a bath?

If the matter were simply one of smell, or even one of smell and sight combined, it might concern delicacy, but would have no grave import. But in fact it is a matter of health also. Even though the closet be as perfect as plumber and sanitary engineer can make it, it ought not to be combined with the bath-room because of the possibility of derangement, the probability of its use by members of the family suffering from sickness or disease, and the fact that it requires conditions different from those of the bath-room in order to maintain it perfect. For half the year, at least, through our long winters, the bath-room, if it is to be at once a source of health and of pleasure, requires to be heated, while the closet is decidedly better without any artificial heat. The former is, or ought to be, a place in which we spend some little time, while the latter is, or ought to be, for actual necessity only.

It is comfortable, no doubt, at times, to have the closet handy, and handy it can be, but should be accessible from the bath-room only by passing through a door. It should be so placed that access to it can be obtained without entering the bath-room, so that it can be used by one member of a family while another is bathing. Who among us does not know the misery of waiting until another has bathed, or the equal misery of bathing while the too handy necessity beside the bath is in use.

A great deal of modern delicacy is opposed both to convenience and health:

but here is a matter in which convenience and health are consonant with modern delicacy, since the last is in the highest degree outraged by the usual arrangement; yet delicacy has not yet

taken umbrage at the unholy union of privy with bath, nor have convenience and health brought their batteries against it.

### THE PUBLIC HEALTH FOR JANUARY.

MORTUARY RETURNS FROM TWENTY-SIX CANADIAN CITIES AND TOWNS.

**T**WO more cities—Brantford and Victoria B. C., commenced in January to make monthly returns of deaths to the Department of Agriculture in Ottawa, making in all now twenty-six cities and towns which report monthly their mortuary statistics.

The total number of deaths reported by these twenty-six principal cities and towns for the month of January was 1323. The twenty-four cities which made returns in December, reported a total of 35 more deaths in January than in December, or an increase of a little over 7 per cent.

The total mortality for the month in the twenty-six cities and towns was at the rate of about 22, 5 per 1,000 of population per annum.

Montreal, giving the city the benefit of the last civic census and putting the population at 186,000, returned a mortality at the rate of 26 per 1,000 of population per annum. The mortality of Quebec was about the same. In Toronto there was an increase in the mortality in January over December, of about 14 per cent. In Ottawa there was a large decline in the death-rate for December, and the mortality was the lowest, we think, upon record, or at a rate of less than 18 per 1,000 of population per annum. In Peterborough there was a marked fall in the mortality in January, when it was 25 per cent. less than the average of the three previous months, and 35 per cent. less than in December. In Kingston, although the average mor-

tality has not been high, it was very high in January—nearly 30 per 1,000. In Hull there was a fall in the mortality in January, as compared with the previous month, of over 30 per cent; and while in Sorel there was a decline, it was still above 60 per 1,000.

From Zymotic diseases, in the twenty-six cities and towns, there was a slight decline in the mortality, and during the last three months the total rate from this class of diseases was under 4 per 1,000 of population per annum. In Toronto there was an increase in the rate from this class of diseases, and in Ottawa a decided fall. London and Peterborough, which returned a high mortality from Zymotics in December, in January are considerably below the average.

There were no deaths from small-pox; none have been reported since June. From measles there were only 7 deaths, 5 of which were in Montreal, 1 in Toronto and 1 in Sorel. From scarlet fever only three deaths were reported, all of which were in Toronto.

From diphtheria there were 5 less deaths than in December. In Montreal, Toronto and Hamilton there was a decrease in the mortality from this disease. In Quebec there was a large increase. Ottawa is one of the 6 places in which there were no deaths from this cause in January. In 20 of the places mortality was reported from this disease.

In local diseases there was an increase in the mortality of about 10 per cent for the month.



## MISCELLANEOUS ITEMS AND SELECTIONS.

**DURATION OF INFECTIVENESS IN SCARLET FEVER.**—Dr. Ashby (*Br. Med. Jour.*) summarizes a paper on the above subject as follows: 1. If desquamation is complete, convalescent scarlet fever patients may be discharged at the end of the 6th week, though, in order to secure absolute immunity from infection, it is wiser to delay until the end of the eight. 2. Cases complicated with nephritis, empyema, otitis, or glandular abscesses should be detained until the cure is complete. 3. That while it is important that desquamation should be as complete as possible, the detention of the patient beyond the eighth week, in order that the epidermis should be removed upon the soles of the feet, etc., is unnecessary.

**IMPORTANCE OF EARLY RECOGNITION OF CHOLERA.**—Dr. E. O. Shakespeare, who some months ago was appointed by the United States Government to go abroad and investigate the subject of *Cholera*, (report of Tennessee State Board of Health) recently in a lecture before the college of physicians of Philadelphia, is reported as having made the following statement, which every medical man, but especially every officer of health, should bear in mind, and be prepared, upon the shortest notice, to intelligently apply the test suggested, should occasion arise. He said: "Although the proof of the statement that the *Comma-bacillus* is the active and efficient cause of *Cholera Asiatic* was not entirely satisfactory to his mind, the lecturer felt no hesitation in declaring that Koch had conferred an inestimable boon upon the race by placing in the hands of every practitioner an infallible means of diagnosis of

this disease from *Cholera Morbus* and other diseases resembling *Cholera*. He expressed the opinion that a health officer or physician who, in the presence of suspected cases and before the prevalence of the malady as an epidemic should fail to employ this means of deciding whether or not the disease is genuine cholera, would be guilty of criminal negligence."

**CAUSES OF OLD AGE.**—Dr. W. O. Dawson, in *Knowledge*, has discussed the subject of diet in relation to age with a good deal of skill, and Mr. De Lacy Evans, as well as other writers, in recent investigations, have established some very interesting and valuable facts. It appears that the principal characteristic of old age is a deposition of fibrous, gelatinous and earthy deposits in the system. The slow but steady deposition of calcareous matter throughout the system is the change which produces old age, seen in the failure of the heart's action, the stiffened limbs, impaired digestion, and wasting mental and physical powers. The calcareous deposits in the heart and arteries, causing partial ossification of the heart valves and arterial tissue, impede the circulation, and by shutting off the supply of blood necessary to nutrition, produce mental and physical starvation and senile decay. The fibrinous and gelatinous accumulations of old age, the former being an oxide of albumen, and the latter an oxide of fibrine, deposited by the blood in the blood vessels and tissues, lessening the calibre of the vessels and diminishing their strength, leading to induration, are, it seems, chiefly traceable to the chemical action of atmospheric oxygen.

**SURFACE FILTH** as a medium of disease, was the subject of a paper by the Rev. Henry A. Wales, at the late sanitary convention in Michigan. He said: In 1876 Dr. Henry Bowditch, of Boston, made an estimate of the annual cost to the people of the United States because of unnecessary sickness, and placed the figures at \$100,000,000. Later, one of our own physicians, who is with us to day, revised these estimates—going more into detail, and he increased the amount to \$300,000,000. And this estimate leaves out of view the physical suffering, the mental pain and anguish, and the death of loved ones. Rubbish of any kind always becomes filthy if allowed to stand, and dampness increases filth by causing fermentation and vegetable growth. . . A close inspection of all the premises of a habitation is continuously needed, that nothing which may cause filth may be allowed to accumulate. Mr. Wales thought that the "grand march of the giant contagion begins in the surface filth and the vaults of the civilized privy;" and he thought that if the dry earth system were universally introduced, it would exterminate such diseases as cholera, dysentery and typhoid fever, as they are propagated solely by germs in the voided excrement.

**INTERESTING INCIDENTS IN THE LIFE OF A DISTINGUISHED PHYSICIAN.**—In a sketch contributed to the *New York Medical Journal* by Dr. Wylie, on the life and works of the late Dr. J. Marion Sims, many interesting facts and incidents are given. He was truly master of himself. Vices he had none, not even of the smallest kind. The animal in him was completely under control. His habits and his appetites were always guided by his reason. I have known him day after day and month

after month, rise at seven, take a simple breakfast, consisting of a glass of milk and Southern hominy, bread and butter, and sometimes an egg. At eight enter his carriage and make a few morning calls on severe cases. At nine return to his office and see patients till one or one-thirty, and take a simple lunch of steak, potatoes, etc. At two enter his carriage, visit patients, operate, etc., returning home usually about five or six, write letters, and at seven take a plain dinner of one kind of meat and vegetables. He never took wine, nor coffee, nor tea, nor condiments of any kind. At the table he was usually talkative and playful, talking about the topics of the day and the theatre, of which he was very fond. After dinner he usually wrote letters and did light work, reading journals, etc., or passed his time with his family or friends in the drawing-room. About nine-thirty he would usually go to his bed-room, where he read or wrote, sometimes lying in bed, until midnight, when he would retire for the night. It was always marvelous to see him so continuously and persistently intent upon his work. He had a habit of writing down ideas at night, by means of a pamphlet, the edge being placed on paper so as to guide his pencil without a light. When one was familiar with his capacity for endurance, his power of concentration, his unbounded enthusiasm, his deliberate, persistent, painstaking work, backed up by his unselfishness and undaunted moral courage, it was not surprising to witness his success. His motto as a boy was: "Duty before pleasure." Later in life he needed no motto; it had become a habit for him to do what he thought was right. Difficulties, obstacles and trouble were as nothing to him when once he had made up his mind to act.

He went directly at a thing, and he kept at it until it was mastered. It was this great painstaking and persistent work that made things so clear and so definite to him, and enabled him to express his ideas so lucidly. It was also this power that developed his self-reliance and his moral courage, and made his instruments and his methods of operating so nearly perfect.

**LEAD POISONING**—In the *Deutsche Vierteljahr für öffent. Gesund.*, No. 4, (*Sanitary Rec.*), Reichhardt criticizes the conclusions of Hamon and others that drinking water should not be conveyed in lead pipes. His own experience, dating from 1879, showed that under certain circumstances lead pipes are not prejudicial to water. He examined a number of lead pipes which had been in use over three hundred years, and found that the inside of each was coated with phosphate and with chloride of lead, with a small admixture of oxide of lead; that chalk and magnesia were present in very small quantities; and that the pipes appeared in very good condition. A series of experiments were conducted with distilled water, spring water, and acid water, some of which remained in the pipes, each pipe containing one litre of water. The distilled water, as well as the acid water, gave, after even a few days' lead reaction, but the spring water remained in the pipes for weeks without showing any traces of lead. His conclusions may be summed up as follows: lead pipes are perfectly innocuous for ordinary drinking water when used as closed pipes or where there is high pressure, but it should be made contrary to law to employ lead for cisterns or open pipes to convey water. These conclusions furnish still another argument against the intermittent service of water supply. Allowing the pipes

to become empty and periodically refilled is to place them in precisely the condition which, according to Reichardt, favours the action of the water on the containing pipes.

IMPORTANT sanitary arrangements carried on in Galashiels, Scotland, during the past few years, with the introduction of an ample supply of water for all purposes, has, according to the *British Medical Journal*, effected an almost total banishment of typhoid fevers from the town. The purification of the river has been carried out most effectively. This has greatly lowered the death-rate, which for the year 1886 has continued under 16 per 1,000. Previously to the above improvements it averaged over a number of years 20 or 21 per 1,000.

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AN open mouth is the sign of an empty heart, as a chest open is a sign that nothing is in it. When money or jewels are within it is kept locked.

A DEAF and dumb person being asked to give his idea of forgiveness, took a pencil and wrote, "It is the sweetness which flowers yield when trampled upon."

IF you want knowledge, you must toil for it; if food, you must toil for it; and if pleasure, you must toil for it. Toil is the law. Pleasure comes through toil, and not by self-indulgence and indolence. When one gets to love work his life is a happy one.

AMONG bachelors, 38 in 1,000 are criminals; among married men, 18 in 1,000.—The obvious moral to which is that if you want to keep out of jail you should get married. That is, of course, get married once, for people have got into jail for taking this prescription too often.

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## EDITOR'S SPECIAL CORNER.

The rapid growth of a city is the pride of the citizen. We are repeatedly reminded that the estimated population in our public health tables are too low; though we always endeavour to get and to give the truth as nearly as possible in this regard. Most citizens too, take pride in the appearance of their city; they like to have it look well—fine streets and avenues, boulevards and handsome buildings. With all this, too little thought is given to the manner in which a large proportion of the poorer people, or of the industrial classes, are housed. There is always too much "heaping together." Some attention it is true is now being given to the manner of building up the new parts of cities—to the construction of the houses, but the older parts receive no attention, are allowed to remain undisturbed, the older houses become more and more unfit for habitation, fall into the hands of poorer and poorer people, often with many children, and become overcrowded and very hotbeds and centres of disease; from which epidemics often spread, in one or other of the many ways in which the infinitesimal infections are carried, to the better parts of the city.

At a very early date attempts were made by the Sovereigns of England and France to check the growth of London and Paris. Queen Elizabeth and Louis XIV, in their respective edicts, had stated reasons why

their capitals should not increase in size, among them being that "the country would be depopulated," and that the people "would be heaped up together, and in a sort smothered with many children" in small habitations, and that people in towns were not so healthy as in country places. A century ago Lord Kames wrote that "London was a greater enemy to population than a perpetual bloody war would be." In 1865 Dr. Morgan estimated that in order to maintain the growth of London "the whole available resources of a vast country nursery, peopled by nearly two millions, must be called into requisition." James B. Russell, M. D., L. L. D., Medical officer of Health of Glasgow in a recent lecture, said that, what he protested against was that the towns did not rear their own children into healthy and vigorous citizens. They subjected selected country lives to physical conditions which were fatal to child life, and slowly sapped the vigorous rustic constitutions of the parents. It seems possible that a city could be so built as to afford the essentials of vigorous and long life and health, from infancy, to its citizens, and that any drawbacks to health from large numbers per square mile could be more than counterbalanced by advantages from various comforts not obtainable in country life. But as now built, cities everywhere are far from favorable, but quite the reverse, to infantile life.



DR. RUSSELL ASKS, "Taking the case of a city child, with sober, industrious parents, born in a city—fairly well looked after as to general sanitation, what, in a word, is it that such a child still lacks which the country child had and that it most required? The answer is, space or room. The larger the city, the greater the competition for living and working room; and it is greatest in the heart of the city." Undoubtedly space—breathing space—room for the free circulation of fresh air, is the first and greatest want of the city infant; but it also wants, and next to this, good pure food, in which may often be included, drinking water. In the country the food is fresher and purer, especially is this the case with reference to the milk, the most important of the infants' foods. In these two essentials of life, then, pure air (ventilation, wide streets, parks, squares, open spaces) and good wholesome food, the city infants are at a great disadvantage. To these two essentials should be turned the attention of those who would save young life in the cities; as indeed it is in some instances already turned. City authorities and all others interested in the well being of the city should make every possible effort to provide these essentials, and to remove the antagonistic evils, impure air and unwholesome food. Then there will be a still more rapid and more natural growth of the cities population.

"THE CHILDREN of the city and what can we do for them?" was the subject of a recent lecture by James B. Russell, M.D., L.L.D., medical officer of health of Glasgow, before the Edinburgh Health Society, above referred to. "What can we do?" referring to the making of cities more like places where children formed part of the population, the lecturer said:—"At present they seemed to have been laid out by some Board of Bachelors, Malthusians, or Herods. Think of the pains expended by breeders of stock upon special arrangements for the young. The city notion was to pack the adults as closely as possible, and then shake the children down into the chinks. There was no place they could call their own; they were in the way both inside the house and outside. He was disposed to believe that if women had had a voice in legislation, children would not have been forgotten. But did any father

ever ask a municipal candidate if he would support a proposal to provide playgrounds for children in the ward, or press similar questions bearing on the welfare of the young? upon Parliamentary candidates? Wherever the element of space was involved in any proposed legislation, let the people support that which would give them the most space about their dwellings. They would always find the landlords, house factors, and speculative builders on the other side. The people would save the increased taxation in doctors' bills and burial expenses." He exhorted working men to remember that for them the most useful open spaces were those which were close to their houses. He objected to distant parks solely as substitutes for the occasional simple playground in the heart of the city. Both together formed a complete provision for the young children as well as for the adults.

THE life of growing youths, too, male and female, who have been developed in the country, is often sacrificed in the city by unhygienic conditions. It may be by over work on the youth's own part, but far more likely it is the long hours in an unventilated shop or office at close confining work, or it may be the badly conditioned boarding house or the inferior, innutritious food provided in it. So that, as we would point out, it is not only, but chiefly, the infantile population of the cities which suffer. There are many pit falls for youth, and next to the infantile dangers, are those probably of young girls, in shops, "stores" and factories of one sort or another, from foul air and over work, or long hours, with pay too small to afford the ordinary comforts or often even necessaries of life. These demand the attention of those interested in the well being and progress of cities.

Toronto has taken a wise step in deciding, as the Council has done, to reduce the number of liquor or saloon licenses in the city from 217 to 150 and shop licenses from 64 to 40, and increasing the license fee. It was with difficulty it appears that the measure was carried, and only by a small majority of the Council. It is to be hoped that next year there will be a still further reduction in the number of licenses and increase in the fee, and that other cities and towns, many of them, will take like action.

The curse of the country is less in the spirituous liquors themselves than it is in the saloons which on every hand tempt the young, and old too, to indulge, and with boon companions, to indulge again and again, and on to destruction. While we believe there is much good in alcohol, no part of the good that we can see comes from the saloons, or other places of public resort for drinking and treating.

TWO VERY IMPORTANT yet simple, sanitary measures there are, which if regularly carried out everywhere—in villages, towns and parts of cities with no sewerage system, would add greatly to the purity of the air and water: indeed, would remove the chief causes of the impurities. These are, first, the burning of the kitchen solid refuse in the kitchen stove, and, second, the mixing of all closet excreta, especially the solid parts, daily with the coal ashes, which, of course, had better be removed by scavengers at least once or twice a week. This would leave only the slop-water to be disposed of. With a moderate fall in the ground surface to give an outflow, this slop-water will almost dispose of itself. And open drains for this purpose are far better than to allow the slops to be thrown upon the ground near dwellings or wells, where they soon so pollute the soil as to render it dangerous. Health officers in villages and small towns could do much to induce individual householders to adopt more or less completely, according to circumstances, these simple measures.

#### OBSERVATIONS AND ANNOTATIONS.

A VALUABLE REPORT is published in the *British Medical Journal* of January 29th, ult., by Arthur Ransom, M.D., F.R.S., lecturer on public health, Owens College, Manchester, on the duration of infectiousness of scarletina, small-pox, measles, mumps and diphtheria. His data are from a large experience, from evidence collected by individuals and by "collective" investigations. Measles was shown by five cases to be infectious before the appearance of the rash; in two cases, at least two days before that event, and one case apparently four days. In one case, three days before the rash appeared, it failed to give the disease to seven susceptible children. Scarlet fever

was communicated in four cases from twelve to twenty-four hours before the appearance of the rash; and, five weeks after this time, in one case after disinfection, no contagion took place. In two others, however, six weeks after the illness commenced, the disease was conveyed, and, in one of these, disinfection had been carried out at a large fever hospital. Mumps was communicated in one case one day before the swelling appeared in the gland. Small-pox is considered to be infectious in ordinary discrete cases for five weeks, and in the confluent form for eight weeks. In scarlet fever, "if the patient be not discharged till he is thoroughly peeled (hands and feet), till his throat is without the faintest blush, and his discharges are regular, and he has been properly cleansed, there need be no fear of his communicating the disease." The detention of the patient thus varies from one month to seven weeks.

ATTENTION is frequently drawn to the fact that disturbance of soil, apparently soil laden with organic matter—impure soil—appears to increase the frequency of typhoid fever and diphtheria in the vicinity. At a meeting in August of the Harveian Society, Adelaide, S. A., Dr. Foulton said he had observed that the number of cases of typhoid treated during 1882, 1883, 1884, and 1885, appeared to be above the average, and that work of connecting city houses with the new deep drainage system was begun in 1882 and finished in 1885; during these four years there was too much upturning and emptying of old cesspools. Dr. Corbin and other members of the branch called attention to outbreaks of diphtheria following disturbance of night soil. Dr. Poulton thought his figures warranted the adoption of the greatest precautions during the progress of such work.

THE SANITARY ERA, a very welcome semi-monthly exchange, recently commenced in New York, gives in its last issue (Feb. 1st) results of sanitary work in Waltham, Mass. During the last seventeen years the population of the place has ranged from 9,000 to above 15,000. The progress effected in sanitation, as indicated by the general death rate, is from an average of 17.70 deaths per 1,000 per annum in the first nine years, to an average of 15.62 in the last eight, beginning at the date when a distinct Board of Health was established, and ending with a rate of

13.07 per 1,000 for 1886 The reduction in deaths from zymotic diseases, where the effects of sanitary policing is chiefly felt, is still more noticeable; the average of such deaths having been reduced, since the separate Board of Health came into existence, from about twenty-six per cent. of the whole number of deaths to less than fifteen per cent., the proportion last year having been but eleven per cent.

THE PRESENT health regulations in Waltham are unusually strict, yet it is stated that the Board find it possible fully to enforce them, and meet with little opposition. The proper disposal of all refuse, vegetable or animal, excreta, house slops, etc., is defined and exacted; the construction of every privy, cesspool, drain, house system, etc., is prescribed according to the best known sanitary rules; and the supervision of all such work by the Board of Health is secured. The keeping of animals and the transaction of any business liable to affect the public health, the management of contagious diseases with respect to the community and especially to the schools, are all very strictly regulated. The *Sanitary Era* suggests that if Waltham would add the dry-earth system and a complete purified water, the next summary of vital statistics would make a more remarkable showing than this last.

IN QUOTING from this JOURNAL, the *Orillia Packet* refers to our remark in the last number, that "Orillia appears to have been unfortunate last year in the selection of its chief officer," and adds, "the JOURNAL does not correctly apprehend the situation. If there was any misfortune it was in having a Town Council which considered it economy to save two or three hundred dollars at the cost of several valuable lives, and no little sickness." To this we can only say, we had decidedly inferred from reports that the chief officer was not very favorable to sanitary reform and progress. If he was, it appears strange that he could not, or did not, prevent the fatal "economy" of the Council.

According to the Brooklyn, (N.Y.) *Eagle* there are over 140 cow stables in Brooklyn which Dr. McLean, (Vet. Inspec) represents to be in a condition wholly at variance with proper sanitary administration. To the filthy state of the stables and the impure

milk is attributed much of the sickness now prevalent in the city. Pleuro-pneumonia among the cattle is said to have attained wide-spread dimensions. Other cases of contagious disease exist and they are either treated lightly by the sanitary authorities or ignored altogether.

CARLYLE, long ago, when less interest was manifested in health matters, in parks, open spaces, &c., said:—"Every toiling Manchester, its smoke and soot all burned, ought it not, among so many world-wide conquests, to have a hundred acres or so of free greenfield, with trees on it, conquered, for its little children to disport in; for its all conquering workers to take a breath of twilight air in? You would say so! A willing Legislature could say so with effect. A willing Legislature could say very many things! And to whatever 'vested interest,' or such like, stood up, gain-saying merely, 'I shall lose profits,' the willing Legislature would answer, 'Yes; but my sons and daughters will gain health, and life, and a soul!'"

HOUSE OR RAIN TRAPS was the subject of a paper, read at the New Jersey Sanitary Convention in November, by George P. Olcott, C.E. The trap was, he said, (*Sanitarium*), simply a bend or enlargement of a waste-pipe, so arranged as to hold a small quantity of water. The function of this water is to close a branch waste against the free passage of air currents. If more than this is expected of a trap, it is sure to disappoint the expectation. The more complex the structure of a trap, with a view to making it secure against influences tending to empty it, the greater the certainty that it will become a conservator of filth and in itself a nuisance. The writer's observations and experience led him to believe that the simplest form of trap, the "S" and "half S," adequately vented from the crown of the bend, is the best, all things considered. Having examined on the average seven new traps a week for the past ten years, the writer does not hesitate to put it on record as his opinion that the simplest trap is the best, and that any complication introduced in its construction tends to impair its value.

"TECHNICS," in commencing volume four, comes out in a new, large page form. We do not like it so well as when in its handy little book shape.

## NOTES ON CURRENT LITERATURE.

IN THE CENTURY for January all sections of the country are represented, and appeal is made to many tastes. Politics, biography, travel, fiction of four kinds, art, architecture, astronomy, public questions, war reminiscences, unwritten history, poetry, and humor furnish topics of vital and present interest. The drawings, by Winslow Homer, Pennell, Blum, Kemble, Alexander, &c beautifully printed engravings of astronomical subjects (including a novel one of "A Flash of Lightning," from a photograph), the reproductions of the newly-discovered Roman bronze statues, and the portraits of American statesmen and divines, show no willingness to subordinate the excellence of the pictures to the excellence of the text. The Life of Lincoln is occupied with Lincoln's first term in Congress and his life as a lawyer, this instalment concluding the first portion of the biography and carrying its subject to his fortieth year. Mr. Atkinson's second paper on "The Strength and Weakness of Nations" (this one on their weakness) is like its predecessor in presenting graphically an array of facts which will long be referred to by writers and be of much standard usefulness. "The Bailing of Jefferson Davis," as recounted by one of the chief actors in the affair, Hon. George Shea, of New York, is the subject of a paper by George P. Lathrop. Mr. Shea's interviews with Horace Greeley, Garrison, Henry Wilson, F. P. Blair, Chief-Justice Chase, and President Johnson, in bringing about the release of Davis, form an interesting, connected narrative which has not before been given to the public. Col. W. C. Church, in "A Midwinter Resort," describes the Bahamas in a sparkling style, quite in keeping with the illustrations by Mr. Winslow Homer. "The Oldest Church in London" (St. Bartholomew the Great) is the subject of an article by Dr. Norman Moore, which is accompanied by beautifully drawn and reproduced pictures, by Pennell, of the different parts of this little-visited building. Robert Burns Wilson contributes a touching poem, of which the following is the first stanza.

Would we return

If once the gates which close upon the past  
Were opened wide for us and if the dear

Remembered pathway stretched before us  
clear

To lead us back to youth's lost land at  
last,

Whereon life's April shadows lightly cast  
Recalled the old sweet days of childish fear  
With all their faded hopes and brought anear

The far-off streams in which our skies were  
glased;

Did these lost dreams which wake the soul's  
sad yearning

But live once more and waited our returning,  
Would we return?

SCRIBNER'S MAGAZINE started with the unprecedented initial sale of 140,000 copies, a second edition having been required. In the January number, besides a fair variety of papers, is one by the Hon. Francis A. Walker, on Socialism, in which we find the following in support of the advanced theory of municipal sanitary powers:—"Have we now exhausted the catalogue of things which may be claimed to be covered by the police powers of the State? I answer, No. One of the most important remains; yet one of the last—indeed, the very latest—to be recognized as possibly belonging to the State under any theory of government. I refer to what is embraced under the term of sanitary inspection and regulation. That it was not earlier recognized as the duty of the State to protect the common air and the common water from pollution and poisoning was due, not to any logical difficulty or to any troublesome theory regarding governmental action, but solely to the fact that the chemistry of common life and the causation of zymotic diseases were of such late discovery. We now know that there is a far heavier assault than can be made with a bludgeon; and that men may, in the broad daylight, deal each other typhus, diphtheria, or small-pox, more murderously than ever a bravo dealt blows with a dagger under cover of darkness. I do not mean to say that I should hesitate to approve of sanitary inspection and regulation, carried to their extremes, if they were as socialistic as anything ever dreamed of by Marx or Lasalle. For such good as I see coming from this source, in the reduction of vicious instincts and appetites, in the purification of the blood of the race, in the elimination of disease, I would, were it needful, join one of Fourier's

"phalanxes," go to the barricade with Louis Blanc, or be sworn into a Nihilistic circle. But in correct theory it is not necessary for the strictest adherent of the doctrine of limited powers to desert his principles in this matter. The protection of the common air and the common water comes within the police powers of the State by no forced construction, by no doubtful analogy." In the February number is an interesting paper by John C. Ropes, on the likenesses of Julius Cæsar, with many illustrations from the author's collection. Duncan Campbell Scott, of Ottawa, contributes a story of a local character, "The Ducharmes of the Baskatonge."

"THE EPOCH" is a new weekly periodical published in New York, devoted to the "discussion of politics, finance, literature, science, art, music, the drama and social topics." One "important feature of *The Epoch* will be the publication of signed articles by men of acknowledged reputation on subjects of current interest with which they are specially competent to deal." In the first number we find three timely "Views of the Partizan Activity of Public Officers," by Elihu Root, Carl Schurz, and E. M. Shepard; with a sonnet by R. M. Stoddard; "Some of my favorite books (part 1)," by Julien Hawthorne; and "An experiment in transgression (a story—part 1)," by Prof. H. H. Boyesen. In "Literary Notes" we see refreshing touches which we take to be those of an old friend. *The Epoch's* treatment of public questions "will combine the freshness of daily journalism with the thoughtfulness of the monthly magazine article," and an interesting department of it will be "that occupied by short essays of a critical, humorous or descriptive character." Its contents will be varied by a short story; and editorial comment on the news of the week will be presented in brief and pointed paragraphs. In one of these we find that, "The railroad car stove is doomed, but how many lives has it cost to bring about this result? And how many more lives will it cost to demonstrate to railroad managers that the safety of their entire system must always be estimated by the safety of its weakest part? Bridges without guards for the rails or any protection for the sides, easily combustible and altogether antiquated, are surely as undesirable a part of any rail-

road designed for passenger travel as switches under the control of overworked employes or a roadbed easily washed away by a freshet. People will not only avoid railroads having such defects, but they are apt to lose confidence in roads with any part of "hose system they connect." *The Epoch* is printed on 28 pages of heavy paper, and has not only a very respectable, but a stable and decidedly "come-to-stay" appearance.

IN ST. NICHOLAS for February is begun a new serial story by James Otis, author of "Toby Tyler." The author calls it "Jenny's Boarding house: a very quiet but very true story of New York life." It deals with the doings of a lot of little newsboys and a baby which they adopt, and it begins to be interesting with the first paragraph. Hjalmar H. Boyesen opens the number with a stirring and seasonable tale of Icelandic adventure, entitled "Between Sea and Sky," capably illustrated by the frontispiece drawn by J. W. Boles. Palmer Cox tells about "The Brownies' Singing-school," depicting with pen and pencil their remarkable vocal adventures; a Japanese story translated into English, but illustrated by a Japanese artist, is not the least striking feature of the contents; and an exciting story of a brave girl in the days of the first Pretender is told in "Grizel Cochrane's Ride," which is beautifully illustrated by R. B. Birch.

"THE DOCTOR" is a new, and very "newsy," semi-monthly "popular paper for physicians and their friends," which we shall probably refer to again.

#### PUBLISHER'S NOTICES—FOR THE READERS' BENEFIT.

THE "Improved Model Washer and Bleacher," advertised on another page, is a perfect little treasure, so at least says our laundry maid. When asked how she liked it, she answered, "Oh, its just fun to wash with it." And it leaves the clothes beautiful, and one would suppose without the wear and tear of ordinary washing. No family, we would say, can afford to be without one.

SEE the certificates of Drs. J. Baker Edwards, of Montreal, and Covernton, of the Ontario Board of Health, Toronto, in Messrs. Evans, Son & Mason's advertisement of "Mater's" Carbolic Acid, on another page.

READERS visiting Toronto, before purchasing boots and shoes would do well to call at the store of the Toronto Shoe Company, 146-8 King St., East.