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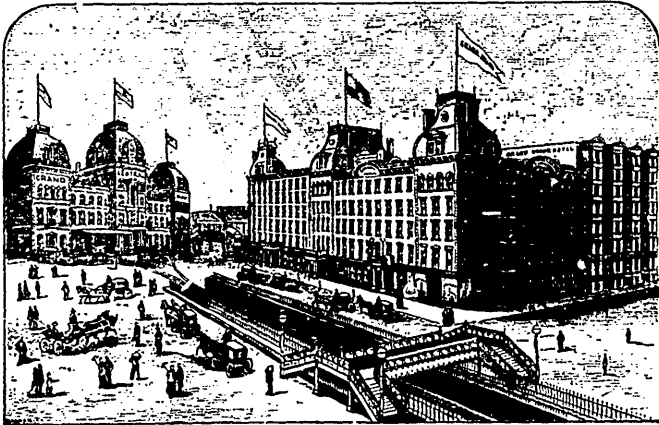
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THE CLAIMS OF THE UNBORN.

BIRTH is not the beginning of life. Before the birth of the tiny, frail and helpless infant, many months have passed during which has been built up, bit by bit—cell by cell—this almost perfected, yet diminutive human creature. During all these months—the days and hours and moments of each month—this little unborn one, the frailest, frailest because the most complicated and delicate, of all created things, is at the mercy of the expectant mother, and is subject to, and influenced by, her every act. This is a serious and a solemn thing for mothers, yea and for fathers too, to contemplate.

None of the many recorded accounts of the marked and often terrible effects upon the child of a shock or sudden fright to the prospective mother need be quoted here to illustrate the effects of motherhood upon childhood, or of the intimate gestational relationship between mother and child. All have seen or heard of one or more of them; of accounts of a strong mental impression upon the mother leaving its lasting impress upon the unborn infant and effecting, through all its after life, the structure of its parts or tissues, even to its very bone-work. If a shock or a fright to the mother can leave such strongly marked effects as are frequently known and recorded, and which are alas too common, will not much slighter mother-acts cause and leave proportion-

ate mother-marks? Will not every act, mental or physical, of the developing parent influence in a measure the offspring? All who are familiar with heredity and the processes and development of life, will doubtless answer yes.

But few parents comprehend their great responsibilities during the antenatal period of their little ones. Fond mothers, who will make almost any sacrifice for the happiness of those of their children who are old enough to get on fairly with but little of a mother's care, who for their children will deny themselves rest, recreation, food, hardly give a thought in this behalf to their little ones as yet unborn. A mother, who, while nursing, will be scrupulously careful in her habits, diet, &c., for fear of affecting injuriously the milk soon to be drawn by her cherished baby, will hardly have thought of denying herself anything or its account for the months just preceding its birth, when her blood, by which it was nourished, was at least as easily affected, and as injuriously, as is her milk later on.

Husbands and fathers too are often quite too indifferent in regard to the partners of their life at this particular period. The wife and mother is too often permitted to be over-worked and worried with household duties and cares, with perhaps many children to attend to and the house work of a large family to do, when help should be pro-

vided; or if it cannot be, much that is done by the mother should be left undone. She should above all take abundance of rest and never be worried in any way, nor over heated.

Parents who desire to have healthy, vigorous, happy children must give due thought and consideration to them from the earliest period of their conception. Dr. B. W. Richardson, in his "Diseases of Modern Life," writes as follows on this subject: The first step towards the reduction of disease is, beginning at the beginning, to provide for the health of the unborn. The error, commonly entertained, that marriageable men and women have nothing to consider except wealth, station, or social relationships, demands correction. The offspring of marriage, the most precious of all fortunes, deserves surely as much forethought as is bestowed on the offspring of the lower animals. If the inter-marriage of disease were considered in the same light as the inter-marriage of poverty, the hereditary transmission of disease, the basis of so much misery in the world, would be at an end in three or four generations.

Greater care than is at present manifested ought to be taken with women who are about to become mothers. Wealthy women in this condition are often too much indulged in rest and are too richly fed. Poor women in this condition are commonly underfed

and made to toil too severely. The poor, as we have seen, fare the best, but both, practically, are badly cared for. Nothing that is extraordinary is required for the woman during the condition named. She needs only to live by natural rule. She should retire to rest early; take nine hours' sleep; perform walking or similar exercise, to an extent short of actual fatigue, during the day; partake moderately of food, and of animal food not oftener than twice in the day; avoid all alcoholic drinks (?); take tea in limited quantities; forego all scenes that excite the passions; be clothed in warm, light, loose garments; and shun with scrupulous care, every exposure to infectious disease.

Mothers and fathers, if you have regard for the life and health of your future sons and daughters, if you regard their happiness and well-being in this life, and in the life to come, be thoughtful, careful and guarded in regard to all acts, mental and physical, of the mothers during the ante-natal life of their infants. Remember, those yet unborn to you have claims upon you as strong as have those loved ones who are prattling around your knees, and do nothing that could possibly bring endless suffering however slight upon those who in a few more years, will also be prattling around you, and thus give you endless grief. Learn and be wise, in time.

THE PHYSICAL TRAINING OF GIRLS.

AS affecting the future mothers and hence the whole human race, this is a subject demanding much greater attention than it has heretofore received. The following, from the *British Medical Journal*, is the substance of an address upon it, delivered to the Gloucestershire Branch of the

British Medical Association, in February last, by Rayner W. Batten, M. D., M. R. C. P., Senior Physician to the Gloucester Infirmary.

What are the causes of, and what are the remedies for, the anæmia of young women? Most striking is the extreme commonness of this condition,

not merely amongst those who are consciously unwell, but very largely too amongst those who are in regular daily work, and to themselves in apparently good health. To me it is almost saddening to note the colourless faces of so many of the young women who pass me in the streets, of the servants in our homes, of the nurses in our hospitals, of those in workshops and houses of business, and of others, too, who throughout their lives seem to have had around them nothing but healthy influences. . . .

The importance of this question cannot be overrated; it is unnecessary for me to touch upon the systems of this anæmia—the vascular disturbances, the caprices of digestive, blood-forming and reproductive organs, and the more serious revolt of the sensory and emotional, and even of the volitional and intellectual centres—but it is needful to point out that this condition, once set up and long continued, tends to become the normal state; and that when thus established, it may undoubtedly be transmitted. If this be so, and if it be true also that the offspring largely and chiefly take their physical characteristics from the mother, then indeed a very serious responsibility is thrown upon our profession. . . .

What has produced this mobility and unstableness? Of heredity as a cause there can be no doubt; constantly we find the girls in a family exhibiting that anæmic condition which has been a life-long characteristic of the mother.

. . . Before passing to that which, in my opinion, is the great predisposing cause of this constitutional instability, let me mention some of the exciting causes which might be brought under control. There are unhealthy occupations in ill-ventilated and crowded workrooms, and young women working

for pay and for length of hours that no man could stand; there are wretched homes, with insufficient light and air and food; there are little children, themselves weak and still growing, taking charge of younger children, and carrying them about until the altered pelvis, and the yielding spine, and the flattening foot only too clearly tell of the injury that is being done; these and similar evils might certainly be remedied or lessened by wise legislation.

But some of the causes named would affect both sexes equally, and hence we must look further for the cause of this instability of constitution in women. There is no difficulty in seeing it, for most evidently it is to be found in the one-sidedness of girls' education. There is the cultivation of the intellectual and emotional sides of their nature; but there is little, or at best no adequate, training and development of the physical. . . .

From the Education Department I received a letter, from which I quote all that is important: "My Lords are not aware of any evidence as to the physical training of girls having been taken by any authoritative committee. . . . No compulsory rules are laid down by the Department as to the nature or amount of the physical exercises in girls' schools, nor has any special report of this kind of training been issued by the Education Department."

We find, then, that throughout this country, in the girls' elementary schools, whilst the Government carefully tests the mental progress, not one word is said and no official oversight of any kind is considered necessary, in the matter of the physical development of the children. The little that is done is due entirely to the wise action of a few School Boards; the children take

the matter into their own hands, and their physical health depends upon the recreation of the streets.

America and the continent of Europe are not very much, if at all, in advance of ourselves. And in our ladies' colleges what do we find? I do not know of more than one which has such a thing as a proper playground; whilst a leading college, if not the first in the country, with abundant means and ample opportunities, makes no pretence of having any playground at all. A gymnasium exists in almost all; and there is seemingly compulsory drill in them for twenty minutes twice in the week; but whilst in some a suitable costume is the rule, I will ask you to imagine the value of twenty minutes callisthenic exercises to a girl with her skirts tied tightly round her knees by a string or elastic cord, as is the custom at one of our leading colleges. Moreover, even this small benefit is denied to the senior girls, who need it most, for those who are going in for the higher examinations can easily obtain exemption.

The drill twice or thrice a week, and the hour's walk, so insufferably dreary, and *ranking neither as exercise nor recreation*, is nearly all that is done to promote physical health in our college boarding-houses during the greater part of the year.

To the girls themselves such a state of things must be both physically and morally harmful. What would be the physical and moral tone of our boys' schools were it not for the sports and games? . . .

Let us consider what physical training is really necessary; and I would here point out that such training needs to be scientifically considered and intelligently carried out, so that all groups of muscles and all parts of the

frame may equally in turn be exercised; no one amusement or exercise will do everything. . . .

First, there must be drill and a gymnasium, with a lady instructor, thoroughly trained in some scientific system, such as the Swedish; and this gymnasium-work must be compulsory for every girl in the college.

But, secondly, drill and callisthenic exercises are not enough; for—they are not practised in the fresh air or sunlight—they are mere exercise, not recreation, doing much to develop muscles and stimulate internal organs, but not influencing the mental faculties, or rousing the animal spirits; and they can do nothing towards the creation of a feeling of pride in the school itself, or towards the breaking down of cliquism and social narrowness. For physical health there must be recreation as well as exercise; and at present, in our ladies' colleges, the exercise, with the exception of tennis, has little of the recreative element in it. I need not specify what athletic sports or games are to be indulged in; swimming, fencing, cricket, football, fives, tennis, games of speed and endurance, such as prisoners' base, cross-touch, and many others; but it would be well, and this could easily be arranged, that some of these games should be played under "Ladies' Association rules."

But first there must be college playgrounds—not dreary places "closed in by narrowing nunnery walls"—but large spaces, open to the fresh air and sunlight, and surrounded only by a suitable iron railing, so that, under and together with their teachers, the girls may play perfectly freely, and girls and passers-by alike become accustomed to the playing-dress.

Secondly, all girls must be made to play in suitable "flannels," for there

can be no proper play or full physical development in the ordinary dress; whilst the wearing of such "flannels" will ensure the necessary thorough change on the return home; the extra handkerchief round the neck, and, in the case of the elder girls, a longer skirt put on over the playing-dress at the close of the game, will be all that is needed for the walk home. I yield the latter in deference to public opinion; I attach no high moral value to it myself, for I have known some latitude of conduct even with the fullest length of petticoat.

Thirdly, subject to health conditions, every girl must be made to play; and two half-holidays a week at least should be given for that purpose.

Fourthly, the games must be varied; no one continues for long to do that which they are conscious of not doing well; every girl will soon find out her strong and weak points in play as well as in work; and if the game is to be a recreation, she must be allowed to choose her own form, the only obligation being that she is to play, and that no books or work are to be brought on the playground.

What are the objections to such a course? 1. That girls will cease to be "lady-like," and that the "figures" will be spoiled. As to the one point: there are no girls more pleasant in themselves, or making more genuine ladies, than those brought up in a family of brothers, and who have consequently shared in and enjoyed boyish sports and amusements; as to the other, this is merely a matter of opinion, for nothing is more certain than that high physical training will lead to good figures. There might be a trifling increase in the size of the waist, but this would soon be pardoned; young husbands would soon learn that a

twenty-inch waist is a fleeting thing, and without "staying" power of any desirable kind; and older ones will feel that a slightly larger waist, and a crease here and there with the natural movements of an almost stayless body, are as nothing when compared with the mental energy, the moral brightness, and the muscular vigour that come with a healthy body. 2. There are social difficulties. These need not be greater in the playground than in the class-room; let it be the understood thing that in both places all are equal, and that in the playground all are perfectly free to play together.

Dr. Balten then alludes to the time being well and profitably spent: "There cannot be the highest mental brightness without playtime and play;" then "there would largely be an end to the hysteria and neuroses which are the curse of the present day;" and young women would not be condemned to lie for months upon a couch. He concludes as follows: No reform begins from below; private families and small schools cannot take this matter up; the initiative must come from the ladies' colleges. No reasonable reform, with common sense on its side, can long be resisted; and, if the colleges will but move, there will soon not be a private school in which high physical training is not invariably the rule. To bring this about is a duty thrown upon our own profession; the heads of colleges have not themselves felt its need or realised its advantages; they can scarcely, then, be expected to be very enthusiastic in its favour.

MR. BARRETT, in the *American Grocer*, at the meeting of the National Agricultural and Dairy Association, said that bad milk sent more people to heaven every year than bad whiskey sent to the other place.

DOMESTIC WATER SUPPLIES—NECESSITY FOR FILTRATION.

FORTY years ago when the writer was a boy living in a beautiful high lying country intersected by numerous streams of clear, limpid, sparkling water, he was repeatedly charged by thoughtful parents never to drink the water of any of these streams for fear of swallowing the invisible germs or seeds of some poisonous organism. At that time, but little was said or written about public or individual hygiene, as now understood; although a sort of moveable earth closet was even then familiar to the writer. Well water, even in the vicinity of stables and out houses, was then less feared than the clear water of the running streams. At the present time, views are quite different—reversed. Well water is generally suspected, while the water of running streams is sought after. It is to be greatly feared that altogether too much confidence is now placed in the water of streams, rivers and lakes. Too much faith is placed in the action and power of the natural forces in oxidizing and destroying the organic impurities which find their way into such waters. Repeatedly in this JOURNAL, especially during the last few months, the attention of readers has been drawn to the dangerous nature of almost all lake and river waters, from their liability to contain the specific micro organisms of infectious disease; and also to the fallacy of relying upon the natural powers of purification: it has been shown by the experiments of eminent scientists that many of these organisms will continue to live and multiply in almost any water, although they cannot be detected by any of the known chemical tests and are only revealed by cultivation and the microscope.

Nearly all streams in the settled parts of the country flow through rich valleys occupied by large numbers of people with their flocks and herds. The lands on either side of the streams in most localities are highly cultivated and the use of rich fertilizers and manures is common. Organic matter in abundance from these and from the decay of vegetation are readily washed with every rain into the nearest stream, whence they are carried into larger streams and lakes, from which water supplies are taken. All this, to say nothing of any specific or infected human excrement which may, and repeatedly does, find its way into such waters. As the *Sanitary Era* recently said, "All water is subject to suspicion, and to probability in the long run, of more or less contamination, traceable or inscrutable. Wherever organic matter enters into water—and there is hardly any water free either from vegetable or animal deposits, and none that is certain to be so at all times—here, organized germs of pernicious character are liable to take up their abode and find the special sustenance, whether vegetable or animal, that they require. They may be conveyed by the air, by living or dead animals, by vegetable debris, or by human and household waste, or by a variety of other agencies, from distant and unsuspected sources, by long voyages under ground or over seas. It is therefore never worth while, for practical purposes, to enter into any nice questioning of the antecedents of a water, for the simple reason that at most it is only immediate danger that can be learned with certainty, but safety can never be ascertained or assured. The only safety is in guarding by purifica-

tion against all three of the injurious orders of pollution present actually or possibly in every water—the irritative and obstructive mineral matters, the unwholesome decomposing organic matters, and the pernicious classes of living organisms. Of the latter, even those larger parasites that take possession of internal organs and tissues in formidable size or number, are mostly conveyed in unsuspected waters, and constitute by the large aggregate of distressing cases a veritable scourge, from which, as to liability, no person is exempt. At the same time, the various micro-organisms now well enough known to be the causes, most probably, of pestilences, epidemics, and malarial or zymotic diseases, are in such active circulation and infinite propagation all over and under the earth, that no water can be wholly safe without constant purification. Optimism and skepticism—nearly allied supporters of delusion—laugh at these rigorous results of science as theoretical terrors that sober experience universally refutes. Fifteen hundred millions of people, more or less, who are well enough at least to be about, seem to be so many perpetual witnesses to the chimerical nature of these alarms. Really, they are witnesses to the power of vitality and to the benign protection of Divine Providence, that ward off innumerable dangers, seen and unseen, from every one of us. But on the other hand, the equal and ghastly multitude of the dead and dying bear witness, interpreted by science, to the power of these invisible hosts, from which few of us ultimately escape to end our lives by natural decline. Instructed thus, shall we still be such fools as to shut our eyes and ears to demonstrated danger, to all but ascertained destiny, and

to proved and practicable redemption from both?"

Once more as to water purifying itself, so to write, in running streams, Sir Benjamin Brodie, the late distinguished professor of chemistry in the University of Oxford, made the following statement before the Rivers-Pollution Commission of England:—"I should say that it is simply impossible that the oxidizing power acting on sewage, running in mixture with water over a distance of ANY length, is sufficient to remove its noxious quality. . . To think to get rid of the organic matter by exposure to the air for a short time is absurd."

Plainly, the only way to obtain absolutely pure and safe water, is to either obtain it from great depths in the earth, as from Artesian wells, or to have it carefully purified by proper filtration. The people of any town or city in this country are able to provide an absolutely pure and safe water for public supply in one or other of these ways, and it is plainly their duty to do so.

ON COOKING.—Dr. Lauder Brunton says cooking should be regarded as one of the fine arts. Miss Parloa, of the New York uptown school of cookery says, "We cook too fast, do up things in a hurry, and outside of a few fashionable restaurants the best method in preparing food are not in vogue. One reason I attribute good cooking to the French is because they do not rush things with big-heated fires, but are sparing with their fuel and cook more slowly. Then, too, they understand more thoroughly how to season food properly. Our great fault is that we are apt to season too highly from having a plenty."

FILTERS AND THE FILTRATION OF PUBLIC WATER SUPPLIES—
IMPORTANT CONTRIBUTION OF DR. PERCY FRANKLAND.

IT might be safely predicted that, if absolutely pure water could be used universally instead of the water now used from wells, streams and lakes, the mortality from zymotic diseases would at once fall to one-half the present rate, and typhoid fever, now so common, and so destructive of the best lives, would soon be practically unknown. The filtration of water has now reached such perfection that unlimited quantities of water can be rendered almost as pure as distilled water. Dr. Frankland, Ph. D., F. C. S., etc., of London, Eng., the well known scientist, who has given much attention to the bacteriology of water, says: "It has been generally supposed that most filtering materials offer little or no barrier to micro-organisms, and that the latter are capable of passing without sensible obstruction through the pores of filters containing pulverized materials. These (my) experiments, however, show that it is extremely simple to construct filters which shall possess the power of removing micro-organisms, in the first instance at least. This power is, moreover, possessed by substances which exercise scarcely any chemical action on the organic matter present in the water."

Again he writes: "1. It is possible by a proper filtration to entirely deprive water of its germ life. 2. After complete deprivation of its germ life, if water is exposed to the ordinary influence of air and contact with the biologically unclean materials used for its storage and conveyance, this germ life is rapidly reintroduced and multiplied. This makes it desirable to furnish the filtered water for use as soon after the operation as practicable.

3. Most filtering materials lose a certain proportion of their efficiency with continued use. In some cases the water filtered through materials which had been in use for a month had its germ life greatly increased by the operation. This was the case with animal charcoal. 4. Some materials, which exert but an insignificant chemical action, are completely successful in purifying the water from a biological point of view. This is the case with powdered coke and charcoal. 5. It is necessary to renew or cleanse the filtering material very frequently in order to obtain the best results. 6. What is gained in rapidity of filtration pure and simple is lost in efficiency."

In a recent report on his repeated examinations of the London water supply, Dr. Frankland states, "Those examinations reveal the highly important fact that, whilst the number of micro-organisms present in the unfiltered water is usually very great, amounting occasionally to about one hundred thousand in a cubic centimètre, or what is more easily realisable, to five thousand in a single drop of average size, the same water, after purification by storage and filtration, contains a comparatively very small number, frequently not exceeding one hundred in the cubic centimètre."

It must be borne in mind that the London water, before being filtered, is very impure, and that the process of filtering is not yet of the most perfect kind. Filters which remove ordinary organic or inorganic impurities have little effect in removing bacteria, or disease germs. In the Public Health Section of the German Association of Naturalists and Physicians, Dr. Plagge, of Berlin,

recently read a report of experiments made by himself with several kinds of filters on the waters of the river Spree. The general conclusion at which he arrived is that no reliance can be placed in the spongy iron, sand, and cellulose filters for the removal of bacteria, whatever effect they may exert on suspended and even on dissolved matters; that carbon filters for the most part actually add to the number of bacteria in water, but that earthen ware filters constructed on Pasteur's principle and the asbestos filters of Dr. Hesse give a filtrate in nearly every instance practically free from germs.

Except in very unusual circumstances, natural filtration through a deposit of sand or gravel, as was attempted on the Island at Toronto in connection with the water works there, is worse than useless. Science must be brought into requisition, and proper filtering materials must be used, these depending largely on the nature of the water to be filtered. The filter too must be repeatedly, even daily, thoroughly washed.

Within the last few years extensive use has been made of certain substances which are known to act upon the dissolved impurities in water, rendering them insoluble, and thus capable of removal by precipitation and filtration.

The substance most suitable in any particular case depends upon the nature of the impurities present, the use to be made of the water, etc. Alum, lime and iron have been most used. Exhaustive experiments have been made with alum by eminent chemists, and it has been found that when present in almost infinitesimal quantities it possesses a wonderful effect in the clarification and purification of waters. If a solution of alum be injected into

ordinary river or lake water in the proportion of from one-fifth of a grain to one grain to the gallon, and the water then thoroughly filtered, the result will be a much brighter, clearer, and purer than could be obtained without its use. No trace of the alum can afterwards be detected in the filtered water, it having united chemically with the impurities and been left behind in the interstices of the filtering material, and may be entirely removed by washing.

Immense filters, with mechanism for washing the contained filtering material are now manufactured. The "Hyatt" filters, manufactured by the "Newark Filtering Company," of New Jersey, are made as large as thirty feet in diameter and seventeen feet high. The filter consists of a cylinder of steel and is divided by a steel diaphragm into two parts. The lower one, eight feet ten inches high, being entirely inclosed and capable of sustaining all the hydrostatic pressure which is required in the operation of filtering. The upper compartment is eight feet two inches high and is open to the air at top. In the lower compartment is the filtering material and here the operation of filtering is carried on. The upper compartment is used for the washing of the filtering material, which is all transferred to it in a state of violent agitation by hydraulic currents, and can be cleansed in from fifteen to twenty minutes. This apparatus would probably filter 2,500,000 gallons of water every twenty-four hours, or enough to furnish a fair supply for a city of 25,000 people. The price of a filter of this sort, ten feet in diameter is about \$3,000. We do not know the cost of the larger ones. One of the Hyatt filters is used in the Asylum for the Insane at Kingston.

THE SCIENCE OR HYGIENE OF ADVANCED LIFE.

SPEAKING of the conservation of life in the aged, Dr. Horatio C. Wood, of Philadelphia, a scientific paper states, recently mentioned the case of a prominent citizen, who, having died at the age of 81, was quoted by his neighbors and associates as being gathered like a ripened sheaf. Dr. Wood objects to the simile as being inappropriate, for the gentleman in question was full of physical and mental vigor up to within a week of his death, and there was no more reason that his life should terminate so suddenly than if he had been but threescore.

This eminent physician believes that, aside from deaths from accidents and preventable causes, the duration of life is frequently influenced by success and failure. The man who has succeeded—and by this he means one who has so spent his years that they form a gratifying subject for self-review—can, by proper care, prolong his life much beyond the traditional threescore and ten. But a sense of failure in life is apt to become the indirect cause of premature death, for it exhausts the vitality and detracts from the recuperative power of the system.

To make old age possible, however, we are told, the several vital organs must be approximately equal in strength. The man of ordinary physique, who possesses this fortunate balance of power, will in all probability outlive an athlete whose development has been unequal. Excessive strength in one part is in fact a source of danger. An overdeveloped muscular system invites dissolution, because it is a constant strain upon the less powerful organs, and finally wears them out. Death in the majority of cases is the result of local weakness. It often hap-

pens that a vital organ has been endowed with an original longevity less than that of the rest of the organism, and its failure to act brings death to other portions of the system, which in themselves possessed the capabilities of long life.

As age creeps over a person, the conditions of the animal organism change, and they possess less elasticity to meet and overcome such strains as can be invited with impunity in youth. Exposure to inclement weather, the sudden shock of good or bad news, are frequently sufficient to terminate a life which with care would be able to endure many more years of active usefulness. It is therefore highly desirable that persons of advancing years should make their personal habits the subject of careful study, and with the help of some wise counselor regulate their daily living in accordance with the changed conditions of their animal economy.

Of all the questions which must be decided as thus indicated, few are more important than that of diet. The loss of the teeth as life advances should be replaced when possible by artificial substitutes. But even with the best product of the dentist's skill, mastication is apt to be imperfectly performed, and the food of elderly people therefore should be easily digestible, and at the same time comparatively soft and readily comminuted. In its nature, the food should not be too stimulating. Many are injured by an excess of nitrogenous food. The kidneys, being weakened by age, are unduly strained if meats and other rich foods are eaten in excess. Milk and its products or cereal preparations cooked with milk are among the most suitable and per-

fect foods. In many cases, too much food is taken, under the impression that the lessened vitality requires increased fuel to maintain the vital warmth. But this is a great mistake, for it must be remembered that growth has now ceased entirely, that but little exercise is taken, and that the function of food is reduced almost solely to supplying the comparatively small waste of a quiet existence.

Dr. Wood believes strongly in the use of wine for aged persons, as it assists digestion and quiets the nervous irritation which is apt to be the result of feeble health. The danger of the formation of any evil habit when a patient has reached the age of seventy, or even sixty in many cases, is so small that the most temperate and conscien-

tious physician need not hesitate to recommend the use of such a tonic. The question of temperature is another, demanding more consideration than is usually bestowed upon it. When the vital fires are losing their energy, and the force of life is waning, it becomes imperative that artificial heat shall supplement as far as possible their deficiencies. Careful heating arrangements and warm clothing are necessary not only for the comfort of old people, but for their very existence. And so in all the details of their living, the altered conditions of the organism must be considered, and their requirements satisfied. In our busy, hurried lives, the science of old age has been too little considered. The span of life, though lengthening, is unnecessarily curtailed.

"A CUP OF TEA."

THE stereotyped invitation to "Come and have a Cup of Tea" is happily associated with a great many pleasant memories of friendly and social meetings and pleasant family re-unions; it is to be regretted, however, that instead of this mild form of dissipation, some less injurious substitute could not be more generally introduced and partaken of, which might answer equally well, and would leave in the human organism no after effects, which too often prove lastingly injurious, both mentally and physically.

It is well known that there are several manufactories in London, England, and in many other large cities, both in Europe and on this Continent, where an article resembling and called *tea* is manufactured from refuse leaves collected from neighbouring hotels, boarding-houses, restaurants, &c., whose used-up stock is first dried in pans and

then coloured with various ingredients to resemble the genuine article.

Recently it has been discovered, as a fact beyond doubt or question, that, in some of our Canadian cities also, such factories are in full operation, and this spurious and sickening trash, compounded as above, is daily offered for sale, by both wholesale and retail traders, packed in artfully-contrived and neatly labelled little boxes, with foreign trade-marks, hieroglyphics, &c. closely imitated; then called by a fancy name, as being of some rare brand of foreign growth and culture.

In this shape, prepared for the market, it is hawked about the cities, and distributed for sale to an unsuspecting public, most of whom little dream of the variety of unwholesome mixtures which compose their evening "cup of tea."

It is a well-known fact that John

Chinaman never exports his best tea—he keeps it for *himself*—for his mandarins and long-tailed celestial aristocracy generally; anything seems to him good enough to send out of the country for sale to foreigners, with whom he has no sympathy whatever, except to rake in their cash in the greatest quantities he can.

What John Chinaman cannot and does not keep for himself of the best quality or first growth of genuine tea is sent overland to Russia, where it commands a very high price, frequently ten times what it would average if sold in a Canadian or American city.

The second growth of Chinese tea, mixed with inferior and refuse leaves of various kinds, is that which is prepared for export; the mixture, composed of a miscellaneous assortment of trash, dried or crisped, and then coloured with acids and dyes of noxious and often poisonous qualities, is that which the cunning Oriental prepares to send away, and laughs in his sleeve as he boxes up the stuff, the steaming decoctions from which are to be swallowed with gusto by the “outside barbarian.”

The price at which stuff called *tea* can now be bought, should alone convince any one who at all reflects on the subjects that it cannot possibly be the genuine article. The price would never pay its freight and other expenses across the ocean; thousands of pounds of a *compound* under the name of “tea” is now daily consumed in America, which has been manufactured or manipulated here.

Almost any leaf of tree or shrub, when placed on a pan and dried or roasted, will curl up sufficiently to resemble genuine “tea,” and the quantities of spurious leaves so used are incredible to the great majority of consumers. The colourings afterwards

used to complete the deception, are in most cases decidedly injurious to health and many of them rankly poisonous; moreover the pans or utensils used in the process of coloring are frequently of a nature to generate poisons, as has been recently proved by cases of fatal termination.

The rapid decline in the price of tea of late years may well excite well-founded suspicions as to its genuine character; it seems but a few years since the lowest price paid for tea of fair quality was about 3s. 6d. in the old currency, and it was considered cheap at that: for on its first introduction into Britain it was then much less free from adulteration than it is at present. It was generally of comparatively fair and genuine quality and considered a great and rare luxury, although it met considerable opposition in many quarters, where it was regarded with dislike and suspicion as a French or foreign innovation of vicious and pernicious character. It would frequently bring as high as 10s. to 45s. per lb., often higher for brands supposed to be of extra quality, and the occasion of first opening a newly-arrived caddy, was made an event celebrated by a numerous assemblage of intimate friends or relatives to meet in social conclave and discuss its merits. The social character of these gatherings has remained to this day, but oh! “what a fall my countrymen” has there been in the composition of the beverage which has so frequently played a prominent and important part in similar meetings.

Temperance orators never tire in their praise of tea. It is the universal panacea for every ailment, and no oration is complete unless it is rounded off with an allusion to the “cup that cheers but not inebriates.”

One grave objection to the use of tea,

especially in early life, is that boys, who have grown up accustomed to its constant use, have been insensibly building up a nervous and highly-strung organization, which too often predisposes to the use of tobacco, whose soothing effect is found to allay the excitement which is the natural result in an organism so abused. The long train of evils resulting from tobacco-smoking, chewing &c. are too well known to need description, but reflection and observation shew that, in many cases, the root of the evil has been the use of tea, which has predisposed to the use of a sedative which frequently proves worse than the stimulant previously used. It may be safely concluded that, if tea and other stimulants were not so generally used early

in life, there would not be so general a resort to sedatives like tobacco and other even more deadly drugs and narcotics in after years.

In the high-pressure life of large American cities, even tobacco fails in, alas! too many cases to allay the unnatural excitement and tension produced in highly-strung, nervous temperaments, by a ceaseless whirl of toil, worry and anxiety on the weak frame called upon to endure it, and resort is becoming alarmingly frequent to even more powerful and deadly drugs, which rarely fail to terminate the career of those so using them, in darkness and despair, and often in insanity or premature death.

MONTREAL.

W. J.

MISCELLANEOUS EXTRACTS AND SELECTIONS.

THE COUGHING HABIT AGAIN.—Last month we referred to this subject at length. We find this in an exchange, on the habit. Coughing is often under control of the will and the result of habit. At first a little irritation is felt, a cough is set up, and habit keeps it going until the irritation provoked, produces a real and serious disease. Through force of sympathy coughing often becomes contagious. This can be well illustrated in a schoolroom of restless boys and girls. Let one child set the ball rolling, another child takes up the musical note, then another, and still another, until the teacher brings the rule to the desk, and commands this noise to stop. Then an eloquent silence prevails. In church we may sometimes observe the same thing—when some old lady, who has had a pet cough for years, sets up a coughing strain, which is soon followed, as if in

chorus, by many other members. The poor preacher then wages an unequal contest and may as well stop preaching. These facts should be ample evidence, that coughing is an act under control of the will in very many cases. In such cases a little application of "mind cure" can be made effective. The family physician can often cure chronic coughs not by a prescription but a simple command.

VEGETARIANISM as a doctrine, says the *Journal of Reconstructives*, has had its day. The vegetarian diet is properly a cure. It is useful as a change, and is a cure for one form of dyspepsia, for gout and biliousness. It may be tried with advantage in summer to counteract the evil effects of too much good living in winter. The milk diet or "dairy fare" is a return to nature by another path. Fever patients arriving at Bellevue are put exclusively on

milk. The organism, much reduced, comes down to first principles and begins life over again.

DISINFECTION.—Berlin has founded an establishment for disinfection. (*American Lancet*.) Hot steam is employed when possible, and chemicals for articles that would be injured by the steam. The owners of the property pay for the disinfection, the establishment doing all the transmission of the articles to be disinfected, to and from. Properly conducted, such an enterprise could do an enormous amount of good in every large city.

THE SECRET FOE.—The *Sanitary Era* gives the following truths: Impairment of vitality is the fundamental cause of most complaints, and the effects of bad water and air mostly turn up in that way, at a distance from their cause, in forms that rarely betray or suggest their real ultimate parentage. Few but feel unwell sometimes, or have sickness in their families; but the immediate and secondary cause, a little exposure, or fatigue, or indigestion, or epidemic influence, accounts for it, and nobody thinks of inquiring why vitality was not sufficient to repel the attack, as it ought to do. Hence, ninety-nine in a hundred people are insensible to the dangers of an unwholesome water supply, because in ninety-nine cases out of a hundred its effects are not visibly connected with their cause, or are thrown off by constitutional vigor for a time. Thousands of soldiers go through scores of battles unhurt, and thousands of persons triumph long in their tobacco habit, their whisky habit or their bad water habit. Those that perish are forgotten, and survivors laugh at warning. A few days ago, in this present February, the writer drew from a Croton water pipe in the city of New York a pail of water that

exhaled a most offensive stench. This, although not an uncommon incident with Croton water, is not so common as it is with Newark water and that of many other places, where the stench is well nigh regular, at least in summer. The stench can mean nothing else but organic corruption—in other words, poison—but we “still live,” and so it is healthy. The reasoning is as stupid as that of the old woman who pinned her faith on the month of February, because, she said, she had noticed that if she lived through that month she always lived through the rest of the year. Nevertheless those who laugh at the one absurdity stick to the other. But an incident occurs now and then where bad water makes its mark as plainly as a bullet. A friend of the writer a few days ago related a case of this sort that came under his own observation in Newark, N. J. A gentleman's little son suffered from chronic intestinal disorder for which many remedies medicinal and hygienic had been tried in vain and his life was rapidly and surely wearing away. At last the doctor bethought him of the corruptions of the Passaic water, and by his advice the family moved to a more wholesome supply. The child at once began to mend, and was soon restored to health.

SANITARY BURIALS.—There are eight principal methods of burial, four ancient and four modern. Inhumation, burning, embalming and storing, as in catacombs, vaults, etc., are as old as the world. To these within a few years, have been added cremation, cementation, electroplating, and what may be termed “coking.” Cementation is the hermetical sealing of the entire coffin by a thick coat of the finest cement. The coffin may be of any material. In this way the escape of gases is reduced to a

minimum and all the advantages of a sarcophagus are obtained without its expense. Electro-plating is the application of a perfectly even metallic coating to the entire body by the same process which produces an electrotype plate. The effect obtained an exchange *sa, s,* is beautiful. "The repulsive corpse is transformed into a glistening statue of bronze, gold, or other metal; form, features, and expression even, being perfectly preserved. Hermetically sealed by this metallic shell, putrefication is impossible, and the body merely mummifies." More than eleven human corpses have been treated by this method and samples were on exhibition at the Paris Exposition 1885. It is sanitary, cheap, æsthetic, and avoids one great objection which can be validly urged against cremation, that it gives opportunity for the defeat of justice by destroying the evidence of crime. The expense is slight, of course depending largely on the metal used.

HOW TO INCREASE THE BODILY WEIGHT.

—In a little pamphlet of "Practical Directions for Exercising and Using the Gymnasium at Amherst College," are the following good rules: Exercising all the muscles moderately for a short time daily. Do not become greatly fatigued. Take a short spray bath, with moderate cool water, two or three times a week. Avoid excessive mental exercise, study or worry. Do things quietly and moderately and not with a rush. Lie down and rest, or sleep for half an hour after dinner and supper if possible. Do not study soon after eating. Practice deep breathing and holding the breath, to exercise the diaphragm and stomach. Retire early at night and sleep as long as possible. If sleepless from brain work, eat a few graham crackers before retiring,

to draw the excess of blood from the brain to the stomach. Then bathe the head and back of the neck with cold water, and if necessary the feet also and rub them briskly until red and dry." It is recommended to eat slowly of plain nutritious foods—sweet vegetables, corn-starch, fat meats, soups, with milk, chocolate and cocoa.

HEALTH RULES—FOOD ADULTERATION.
—In one of Dr. William Hitchman's "Lectures on Health" is the following: Urge the most punctilious observance of normal skin, natural temperature, intellectual recreation, regulation of work, sleep, and waking hours, not omitting scientific ventilation and improved dwellings for the poor, cheap food, good cookery, as well as singularly minute attention to clothing and changes of weather—physical puritanism, in fact, with avoidance of alcohol, tobacco-snuff, and every intemperate habit; yet none shall raise Britannia's present veil of darkness until each child is radiant with the beauty of individual reform. Nobility of character is the only real life. In justice to the work-classes, however, with whom I have been largely intimately associated for some half century past, either as medical student, hospital surgeon, or poor, law medical officer and Sunday lecturer, let me say that—opposed to their progress is a social fiend; in the *adulteration* of food and drink is to be found a veritable "demon of humanity," or coldness of heart and barbarous cruelty. Surely that man *is* a devil in deed and in truth who, "when asked for bread, giveth a stone." Why does not a competent board of chemists scientifically declare on each article *ex cathedra*, that the veriest necessities of life are really what they seem to be? Some of these sophistications, comparatively speaking, are perfectly harmless—I

know, from analysis—whilst other foods and drinks are absolutely poisonous, and often, alas! fatal. Adulteration of food and drink results in the daily construction throughout the country of mansions urban and suburban, whose foundations are the graves of its helpless and indigent victims.

“HEART DISEASE” v. HURRYING.—The *Pacific Record of Medicine* says, almost every day we hear of persons dying of “heart disease.” In most cases, we may as well say “they died from want of breath.” That men and women may have heart disease, or difficulty of any other organ, is true; but many cases of “heart disease” should be attributed to most wanton improprieties, which overtax the lungs and heart and the whole machinery. As we passed through a gate of a railway station, the other day, a young man fell in the passage and died almost immediately. The doctor summoned pronounced the cause heart disease. A gentleman standing near said: “If you had seen him running, you would say he died from hurrying.” There was probably no disease of the heart or of any other organ, but an overtaxing of all the organs. By this foolish desire to catch a train or to reach some point a little sooner than we can do it safely, some of us are frequently jeopardizing our health and perhaps our lives. If we behaved ourselves, and lived and acted in moderation, we should have less deaths from “heart disease.”

CARPET-BEATING.—The time for the annual domestic revolution of house-keepers, known as “spring cleaning,” is at hand, and the carpet-beating nuisance, with its horrid din and clouds of dust, will soon be in full activity. Some

arrangements should be made by municipal authorities in villages and towns as well as in cities, whereby all carpets should be taken to a safe distance from any dwelling for the purpose of being beaten; although nothing should be done to discourage this most essential renovating process, but rather to encourage. It should never be permitted in back yards nor in adjacent vacant lots. The *Lancet*, on this subject, says: It will be unavailing, we know, to complain of the noise—no appeal in this direction will gain a moment's sympathy; but we hope more attention will be paid to the other nuisance. When we reflect on the nature of the dust thus raised, we are surprised that sane persons allow to be thus stirred up under their noses all the nauseous accumulations of dining room, bedroom, and stair carpets, to say nothing of door mats, etc., into a fine dust, and which thus dispersed finds its way again into our houses in a form most readily accessible to our respiratory organs. Indeed, it is fortunate if the dust thus roused is only nauseous and not infective, since the desquamated cuticle of scarlet fever, the scabs of small pox, the dried sputa of consumptive or whooping cough patients, living parasites, and hairs from mangy cats and dogs may thus invade our rooms. Carpet beating should, in any form, be prohibited within a reasonable distance from dwelling houses; and for those who cannot afford to pay the small sum required to have their carpets and mats properly cleaned, the authorities should set aside some open space, to which on stated days and at certain hours persons might bring their carpets and have them beaten, without causing annoyance or danger to themselves or neighbors.

ADVICE TO PHYSICIANS—GOOD FOR PATIENTS.—The Rev. Dr. Paxton, before the graduating class of the medical department of the University of New York, last month, said, my first bit of good advice to you, gentlemen, is this: Wherever you go to open an office, and set up a gig let it be known that you are pupils of hygeia; that you are advocates and promoters of health, of temperate living, rather than repairers of broken constitutions and nervous wrecks. Tell people that half our maladies are self invited, that they are Nature's revenge on us for neglect or violation of easily discovered laws. To talk of men of your high calling doing your work for fees alone is worse than an insult, it is a crime against the high and holy service you are pledged to render humanity. Oh if people were not so ungrateful! rating higher the fascinating coquetries of a vain woman than the steadfast love and loyalty of a devoted heart, and praising louder the temporary relief a specious quack or cure by faith affords than the honest, helpful oversight and directions of a family physician who kept them from ruining their digestions, or swelling their livers, or overtaxing their kidneys for a score of years. Oh, if people were not so ungrateful! I could hope that a good time would come for us when we would gladly pay a physician a bigger fee for keeping us well, than for curing us when ill.

A REVOLUTION IN MEDICINE.—M. A. Pallen writes, in my opinion the practice of medicine will be revolutionized within the next few years. We will live to see the student and successful practitioner of to-day retire altogether from the actual practice of medicine, and establish himself as a consulting physician only. The learned surgeon or physician of the future will devote

more time and attention to the prevention than to the cure of disease. It is no great trick to learn to set a fractured bone or prescribe a dose of salts. Such things will be relegated to a class of practitioners about on a par with what are now called nurses. Hygiene and sanitation will be the study of the physician of the future. Of course he must have a knowledge of drugs, anatomy, physiology, and such matters, but his office will be that of a consultant. The bone-setters and drug-prescribers will lay their cases before him, and he will advise them pretty much as the advice of an old established counselor-at-law is sought by an attorney. The great question of the future will not be so much the cure as the prevention of disease.

THE EARTHQUAKE CURE.—A Charleston physician, *Good Health* states, has been writing to the *Medical News* an account of the medical aspect of the recent earthquake in that unfortunate city. After relating several cases in which persons were nauseated, and vomiting produced which continued unabated for days, the doctor tells of cases in which chronic invalids were suddenly cured of long standing ailments. One man was wholly cured of a chronic rheumatism, and another was as suddenly relieved of a nervous exhaustion which for months had incapacitated him for business, and recovered his old-time energy and activity. What could be more stimulating than a first-class earthquake? Such a remedy ought to start a man out of the deep worn ruts of disease if anything could. Now perhaps some one will seize upon th's new idea, and develop a system of earthquake treatment, by the aid of giant powder or dynamite, for the cure of bedridden rheumatics and neurasthenics.

THE PUBLIC HEALTH FOR MARCH.

MORTUARY RETURNS FROM 26 CANADIAN CITIES AND TOWNS.

THE total number of deaths in the month of March in the twenty-six chief cities and towns of the Dominion which make monthly returns to the Department of Agriculture in Ottawa was 1,337. This number is greater by 182 than the record of mortality in the same cities in the previous month. As March is three days longer than February, the increase in the mortality in March however, it must be observed, was not so great as the figures make apparent. There were 13 more deaths in March than in January. March in this climate is a month in which the mortality, more especially from lung diseases, usually much exceeds that of either of the few previous months. This year seems to be somewhat exceptional in this regard, whatever the cause may have been. The winter has been unusually severe; the late appearance of spring may throw the usual increase more into April. The total mortality for the month of March was at the rate 23.5 per 1,000 of estimated population per annum.

In Montreal, the mortality increased from 27 per 1,000 in February to 29 in March; and in Toronto from less than 20 in February to 22 in March. The mortality in Hamilton increased to 26 per 1,000; and in Halifax, to 23 per 1,000. In Ottawa the mortality was somewhat lower in March than in February. In Quebec it fell to 21 per 1,000; it having been 26 and 24 in January and February respectively. This is highly satisfactory, and unusual of late years for that city. The average there for last year, 1886, was 31 per 1,000. There is no reason why the mortality should not be kept down to this point and many valuable lives

thus saved. In Kingston the mortality still further declined, as low as to 18 per 1,000; having been nearly 30 per 1,000 in January and 25 in February. In London there was an increase in the mortality in March of nearly 50 per cent as compared with that of February.

From zymotic diseases the rate of mortality in the twenty-six cities and towns was about the same in March as it was in February.

In the mortality from diphtheria there was considerable of a decline; with an increase in that from measles and scarlet fever. Of the total deaths from measles, 26 in number, 16 were in Montreal, 5 in Hamilton and 5 in Sorel.

THE MORTALITY FOR THE FIRST QUARTER OF THE YEAR

During the first quarter of the present year the Dominion appears to have been exceptionally free from epidemics of a severe or general character, if we except the few local epidemics of measles. The total mortality during the quarter in the twenty-six chief cities and towns was at the rate of 22.5 per 1,000 of population per annum. During the first quarter of 1886, the mortality in twenty-two of these cities and towns was at the rate of 24.5 per 1,000; but small-pox was then still prevalent in two or three centres. The mortality for the quarter was in Montreal 28 per 1,000; in Toronto and Hamilton 20; Quebec 23; and in Ottawa 21. per 1,000.

The greatest mortality from scarlet fever is during the third and fourth years of life, from diphtheria during the second and third years. The majority of children dying of these diseases in the first five years are boys, while the majority dying during the second five years are girls.

MORTUARY STATISTICS — RETURNS FOR MARCH.

DEATHS IN THE 26 CITIES AND TOWNS MAKING MONTHLY REPORTS TO THE DEPART. OF AGRICULTURE, OTTAWA—CAUSES, &C.

	Total number of deaths.	Males.	Females.	Deaths from Small-pox.	Measles.	Scarlatina.	Diphtheria.	Diarrhoeal Diseases.	Reven, Typhd.	Reven, Remitt.	Rheumatism.	Total from all Zymotic Dis.	From Consti- tutionl Dis.	Local Diseases.	Developmentl Diseases.	Violent Deaths.	Estimated Populat'n in numbers.	Rate per 1,000 of pop. per an.	Rate in pre- vious month.	Rate, corre- pond'g month last year.	Rate for year end'g 31st Dec., '86.
Montreal	440				16	1	5	7	5		2	42	67	197	127	7	186,000	28	27	24	31
Toronto	202					1	11	3	9	1		29	27	102	34	10	110,000	21	20	24	24
Quebec	121						3	3	1			11	19	61	30		69,000	21	24	35	20
Hamilton	92						8		1		1	15	20	46	10	1	41,000	26	15	20	20
Halifax	77											3	20	44	10		39,000	23		24	24
Winnipeg	15							1	2			2	2	6	2		30,000	6			13
Ottawa	53						2	11				13	9	19	10	2	34,000	19	21	27	30
St. John, N.B.	41						1	1				1	14	14	10	1	30,000	16		18	19
London	35											1	7	14	13		22,000	19		27	19
Kingston	22											1	5	11	3	1	15,000	17		12	12
St. Thomas	12											1	1	5	3	2	12,000	12			12
St. Catharines	11											1	4	5	3		12,000	11			14
Charlottetown	9											1	1	5	2		12,000	9			14
Guelph	9						5					6	9	9	11	2	12,000	34			15
Burl.	84								1			1	1	7	2		11,000	12			15
Belleville	11						1					1	1	8	6	1	10,000	22			30
Brantford	19						1					1	5	6	6		9,000	12			16
Three Rivers	19						1					1	3	5	5		9,000	30			25
Chatham	9											1	3	8	6		8,000	16			20
Sherbrooke	23						2					2		3	6		6,000	54			30
Peterborough	11						1		1			1	5	10	3	2	6,000	22			24
Victoria, B. C.	18						1					3	5	6	9	2	6,000	30			44
Sorel	27						1		1			1	3	3	1		6,000	12			
Fredericton	11						1					1	1	2	1						
St. Hyacinthe	15						1					1	1	3	1						
Galt	6						1					1	1	1	1						
Woodstock	4										1	1	1	2	1						
Total	1387				26	4	46	27	16	1	4	153	235	613	506	29	684,000				30
London, Eng.																		20.4			19.9
28 Eng. Towns, pop. 9,000,000.																		22.1			20.9

THE RELIGIOUS PRESS AND QUACKERY.

—The *Weekly Medical Review* writes in this wise: Of all the outrageous inconsistencies of modern times, the strange affiliation of the religious press and quackery is the worst. It is bad enough to see humbug medical advertisements in the secular newspapers, but these are run to make money, as well as to furnish news. It is different with a religious paper. Its main object is, or should be, to advance the cause of truth and righteousness. How disgusting and false to principal does such a periodical seem, when we find the editorial head held high in the atmosphere of purity and honesty, while the advertising tail is low down in the mire of falsehood and avarice; and a great proportion of this singular union is tail. We hold that the editor of a religious paper, more than almost any of his brother editors, is expected, from the very confidence which his work commands, to tell the truth. He is just as responsible for deception in the advertising columns as in the editorial. He occupies as sacred a place and ought to have more influence than the minister in his pulpit. As we listen (or read), we hear him say "Catarrh cured; enough of the remedy sent to effect a cure for \$3.00;" or, "Send six cents and receive free a costly box of goods which will help all to more money, right away, than anything else in this world;" or, "I have a positive cure for consumption. Thousands have been cured." A plain question is, are statements like these true or false? And, if false, what business has a religious journal to publish them,—for money? The meanest medical journal in the land (and medical journals are not all criterions of decency) would scorn to accept some of the advertisements of the average religious paper.

THE DIETETIC VALUE OF WATER —

Dr. Fowler, in the *Cincinnati Medical News* says, I venture the statement that the cause of one-fourth the cases of disordered digestion in fashionable life is a lack of sufficient water in the dietary. It has become customary with men to substitute at their meals wines and liquor; and women, if they do not indulge in these, draw the line at a few sips of ice-water, fearing, as they say, that water freely indulged in will produce obesity, or, by diluting the digestive fluids, induce dyspepsia. The habitual substitution of wines, malt liquors, &c., for water is pretty sure, in the long run, to result in evil in the majority of cases. For, in the first place, where pure or undiluted wine is drunk the individual is not disposed to take enough to supply the system with the requisite amount of fluid, and if he should, everything is upset by the pernicious effect of the contained alcohol. Beer, though containing less alcohol, is open to the same general objections. It should never permanently, or for any lengthened time be allowed to take the place of pure water. Water taken at meals [never when there is food in the mouth] sipped in quantities sufficient to satisfy the thirst acts only beneficially. Indeed, an excess will not hurt, for it is quickly absorbed, and increasing the blood pressure favors digestion by thus inducing a freer flow of the juices. It is a digestive agent as well as food. The result of the ingestion of pure water, tends to keep the kidneys and urinary passages clear of concretions and morbid changes, and with the skin and lungs equally active, the bodily house is well swept. The same result is impossible with artificial beverages. He who stints himself in the drinking of water is dirty inside.

Canada Health Journal.

A MONTHLY MAGAZINE OF PREVENTIVE MEDICINE.

THIRTEENTH YEAR of Publication.

NINTH VOLUME.

Specially designed for medical and other health officers, heads of families and all interested in promoting the public health. The only Health Journal in the English language published in Canada.

ITS AIM—To prevent sickness and promote public and individual health.

Communications solicited on all sanitary subjects

Local health officers would confer a favor by sending to the Editor copies of their reports, brief notices of their sanitary condition, improvements, or events in any way connected with health.

See Club Rates to Health Boards and others on advertising page.

All communications, with remittances or otherwise, should be addressed,

"Health Journal," Ottawa, Can.

A blue cross opposite this indicates that the subscriber to whom it is addressed is indebted for this year's subscription (from Jan. to Dec.), and all such will confer a favor by kindly remitting, for which we shall feel obliged.

We cannot undertake to make out accounts and send them by mail or otherwise and only charge \$1.50.

All not remitting during the early part of the year—the first month or two—must expect to pay \$2.00; we must insist on this in common fairness. Physicians pay \$3.00 for their Medical Journal, containing no more reading matter than this one.

\$1.50 now is worth more to us than \$2.00 many months hence, with cost of time, bills and postage.

Will all friends please think of this, and help us in the work by an early remittance.

ADVERTISEMENTS of unexceptionable character taken to a limited extent and at reasonable rates; advertisements of "patent medicines," not accepted.

EDITORS' SPECIAL CORNER.

THE great want now in Canada is some general practical means for improving the public health. The country is now blessed with general prosperity, and the different sections of it are linked together with one of the greatest and most complete railways in the world. The public debt, however large, is certainly not burdensome. Withal, the death-rate in the principal cities and towns, as shown by monthly mortuary reports to the Department of Agriculture, averages year by year, over twenty per cent. higher than that of the cities and towns in England. There is no reason whatever to suppose that the mortality in the rural districts here is lower than it is in the cities and towns. On the contrary, there are statistics which show that two at least of the most serious prevailing diseases—typhoid fever and diphtheria—are more fatal in rural than in urban localities. With proper sanitary administration—due attention to the laws of health, public and individual, the mortality in Canada should be, and probably would be, lower than in England. Nothing has yet been done in this country, like what has been done in almost all other countries, for the prevention of disease and premature death. Surely all people who are at all interested in the future well-being of the Dominion must admit that it is quite time something were done in this behalf. If we are to continue to be a prosperous and happy people something must be done. What shall it be. First: there must be established a foundation for health

work, in the form of a complete system of health and vital statistics—reports of prevailing diseases and a record of births, marriages and deaths. Through this the public will become interested in health proceedings. Second: voluntary associations should be organized for assisting in the process of awakening public interest in this necessary work. But we maintain that Governmental action on behalf of the public health is indispensable to the future prosperity and happiness of Canada.

THIS question of improving the public health is a serious one. We feel that we cannot write too strongly or too much concerning it. Many hundreds in Canada read this JOURNAL—doubtless read it, or they would not subscribe and pay for it. All of them must now surely feel interested in the subject and feel the desirability of early and efficient measures being taken to remove the uncreditable reflection which the present high mortality must cast upon the Dominion. We appeal, then, to every reader of the JOURNAL to render aid in creating a more general and a deeper interest in the subject. We ask them to "talk it up" with the members of Parliament and others, and endeavour to make their friends and neighbors feel that in every effort made by them toward promoting the general health, in every word of encouragement given to this object, they are striving toward the prevention of sickness and death, which may at any time make its appearance in their own family.

WITHIN the present decade, a marked change has taken place in public feeling in relation to public health questions. This is indicated by the increased interest shown by the daily and weekly press in health subjects, notably in vital statistics, the foundation of sanitary proceeding, and oftener in good, reliable articles, with less of the milk-and-water frequently misleading, advice of past times. It is the dawn of a happier sanitary era. when many more little children, by means of more suitable dieting and purer air, will be carried safely through the critical period of infancy and live on to become useful citizens; when diphtheria, scarlet fever and the like will be so starved and crushed that they will not number their victims by thousands nor hundreds among the "flowers" of the flocks of noble, promising boys and girls; when a far smaller number of our best citizens will be cut off in their prime and vigor by typhoid fever and pneumonia, or, later in life, by paralysis, cancer and Bright's disease; and when not consumption but real "old age," with true euthanasia, will cause by far the largest number of deaths. This is not an imaginary condition, only; it may be realized. If only those who, we are sure, must feel a strong interest in this cause of health, would put forth now an effort, this dawn would soon develop into the full light of the day.

ATHLETISM in man is something well worthy of aspiration. Where is the man who does not desire muscular strength, as the woman desires delicacy and refinement? Half the gross weight of the body of man is made up of about half a thousand separate muscles, great and small, the sole function of which is to produce motion—action. Without a certain amount of muscular action to promote the circulation, the whole human organism becomes debilitated and an easy prey to the countless enemies and adverse circumstances with which the human race is environed. Probably the majority of mankind would prefer to be noted for mental, rather than for muscular development and vigor, and in this age, by reason of wonderful mental development and vigor, steam and dynamite have become such willing powers, while electricity and other and yet unknown forces are awaiting and ready to serve man in almost

any and every conceivable way in which force can be desired, there are not the same extensive demands for muscular power that prevailed in ages past, when the Greeks carried their athleticism perhaps too far; yet as a general healthy state of the brain and mind, as well as of the whole organism, demands muscular exercise, especially and most positively demand it in the growing and developing period of school life, so long as man is constituted as he is, athletic exercises will be always useful, and probably, at least, popular. Hence, athletic associations should be encouraged, and the proposed Gymnasium in Ottawa is well deserving of patronage.

IT must be borne in mind, however, that athleticism may be easily carried to an injurious extent. Much care and caution should be exercised, and more especially after adolescence and during middle life, in engaging in severe muscular development. In this, as in all other things, in moderation is the only safety.—

"Use, use is life; and he most truly lives,
Who uses best."

No man is perfectly developed in all his parts. Not one is developed after the manner of the parson's fabled chaise. Every man has his weakest part or organ; although many know not which part or organ it is that is weakest. Death in most cases is the result of failure in this weakest part. A highly developed muscular system, as intimated elsewhere, is a constant strain upon less powerful parts, and hence, "invites dissolution." The excessive strength in one part is a source of constant danger in another. Athletes are not usually long lived. We would therefore urge upon all disposed to engage in heavy gymnastics and athletic games, especially of the more violent sort, to exercise caution.

OBSEEVATIONS AND ANNOTATIONS.

THE York County Grand Jury have recently spoken out strongly in regard to the sanitary condition of the Toronto gaol. "The closets and lavatory appliances in the various wards are in fact a disgrace to a modern institution." They "noticed the absence of proper and continuous ventilation in the corridors and cells. Flues already existed which might be made effective for ventilation at comparatively

small expense." We believe in punishing criminals, even with the lash, but not with unsanitary torture, perhaps resulting in death. The worst of it is, there are about thirty lunatics confined in this gaol, some of whom had been there a long time—one for nearly three years. Among the number was a child nine years old whose only company was several aged lunatic women. Think of this, friends of humanity. Is there not in Toronto a society for the prevention of cruelty?

THE same Grand Jury spoke in high terms of the condition of the three other public institutions in Toronto. The Lunatic Asylum they "found in admirable condition throughout" but much overcrowded, there being now over 700 inmates, while the accommodation is only intended for about 650. They say "we cannot commend too highly the order and cleanliness throughout the whole institution." The Mercer Reformatory they "found to be in excellent condition." They "were glad to learn from the matron, Mrs. Coade, that the number of inmates was considerably less than last year; also, that they were] as fully employed as possible, chiefly in laundry work." In the Central prison they "found the most perfect order, discipline and cleanliness, and the prisoners fully employed, reflecting the highest credit on the Warden."

It is quite noteworthy, or if not, we may be at least pardoned for noting it, that we understand the Toronto Gaol is one of the few public institutions which do not receive this JOURNAL. Specimen copies it appears have been repeatedly during the last ten years sent to the gaol physician, but they were "of no avail." He won't touch it. The other three institutions receive the JOURNAL regularly—as it is published, and have done so for many years.

THE last Annual Report of the Medical Superintendent of the Asylum for Idiots at Orillia gives some interesting figures. It appears from it that there are between five hundred and six hundred idiots in the province for which accommodation is wanted but cannot now be obtained. Statistics in other countries go to show that there are nearly as many idiots as lunatics. The number of insane appears to be everywhere

on the increase. Dr. Beaton admits that the number of idiots applying for admission "would seem to indicate that idiocy is on the increase in this province," yet he thinks the figures are not evidence of it. We believe lunacy and idiocy are both on the increase in all civilized countries, and that this increase will continue until much more attention shall have been given to the practice of the general principles of health and the proper development of the human race. *Mens sana in corpora sano.*

CUT down the saloons, we have long contended, and intemperance will soon be much lessened. Bars, according to Mr. Justice Rose, in a recent address, are more fruitful of drunkenness than any other agencies, and his lordship thinks they should be abolished. The Nova Scotians, an exchange, informs us, have closed all bars, and it would be a good move if the other provinces were also to try the experiment.

As evidence that there is good in everything, the Ontario Legislature is likely to pass a bill following the lines of the English law which forbids persons taking in infants except under regulations and registration of the municipal councils. In cities the evils of baby farming are becoming very great, most of the children dying within four or five weeks. The bill also provides for the holding of coroner's inquests in cases where deaths occur.

ILLUMINATING gas escaping in closed bedrooms often results seriously, and it is well to provide means for the prevention of such accidents, as recently suggested by the Ontario Provincial Board of Health, but the foul gases and other impurities given off from human lungs during the night in closed unventilated rooms scatters a poisonous seed which develops year by year into causes which are hundreds of times more destructive of human life than illuminating gas; although, strange as it is, the greater evil creates the lesser interest.

"REAL PROGRESS" writes to the *Evening Journal* in opposition to the new park project, says if more money is available, let the poorer class of Lower Town have some attention given to them. Let His Worship find his way to Anglesea and Cathcart Square, and King street and reflect on the annual loss of infant life from bad drainage

in almost every street down to the Rideau. "There is no city in the Dominion which requires so thorough an overhauling as the capital of the Dominion, a city which ought to be a model, but is really a discredit to the country, with its dirty streets heaped with the garbage and rubbish of a thousand dwellings."

JUDGE HUGHES, of St. Thomas, in a recent lecture there, said, Tea had been so much adulterated that the dealers could afford to give back part of their profits in the form of a book to the purchaser. But it would be safer he said for people to buy the book and do without the tea altogether. Tea is largely made now-a-days in Montreal and New York. He quoted authorities showing that in London, Eng., there are eight manufactories engaged in preparing tea from exhausted leaves procured from hotels and the streets and yards, which are re-colored with rose-ink and black lead. "It is a known fact that tea-tasters, though careful not to swallow the infusion, are obliged after a short time to give up their lucrative positions with shattered constitutions! All of which proves that over-indulgence in tea can be as destructive as over-indulgence in whiskey."

THE cholera, it is now generally believed by those best able to judge, seems now more likely to reach this continent during this summer than it has at any period during the last few years. The Federal Government here have made, it appears, all practical preparations for preventing it getting into Canadian soil (a good deal of which would doubtless yield an abundant crop of cholera) but quarantine cannot guard the whole of our southern frontier. The disease has reached the Isthmus of Panama, and it is feared Mexican Central trains may bring it into the United States. Quarantine has been instituted in Texas, and baggage and freight from cholera infected ports will be denied admittance to that State, and mails from cholera-infected ports will be disinfected.

SINCE the above was written, we find in the *New Orleans Medical and Surgical Journal*, for this month, the following: Step by step the cholera is creeping through South America, gathering force as it marches. Beginning in Buenos Ayres, by the latter part of December it had crossed

the Argentine Republic and gained foothold in Chili. A telegram from Panama, dated March 9th, tells us of its ravage in that State, and we may catch a hint of their extent from the fact that it has already been proposed that 'the nation concede a pension to the families of all who may die attending cholera patients.' . . . These are serious signs, and matters of import to other States besides Louisiana. Should the plague reach the Isthmus and Mexico, there will be small hope of this city escaping, and the flood-gates of New Orleans once passed, the Mississippi Valley, and indeed the whole country, may be inundated with disease before there is time to realize the danger.

STILL later: The *Philadelphia Annals of Hygiene*, the official organ of the Pennsylvania State Board of Health, says, It would seem that we have now more reason to fear the advent of cholera than at any previous period since the commencement of the present epidemic. Hitherto we have been separated from the disease by several thousands of miles of water. Now the case is very different. . . . During the past winter the disease has been slowly creeping up the American Continent; it is really on our shores, and it is therefore difficult to understand how any system of quarantine can keep it away from us.

THE nature of fever is the subject of the Gulstonian lectures for this year, but just concluded in Great London. According to the last number of the *British Medical Journal* (April 2.) they contained "some very important remarks." They explain how it is possible for an increased thermogenesis (production of heat), without high temperature, to be present, the increased production being compensated for by increased loss; thus there may be the symptoms of fever without any rise of temperature, and conversely, a high temperature without fever. In maintaining the normal temperature of the body there are three "mechanisms": one for the production of heat, the thermogenic; another for giving off any superfluous heat, as chiefly by evaporation from the skin, the thermolytic; and a third for adjusting and regulating the temperature, the thermotaxic. Fever is a dissolution process, the last mechanism evolved—the thermotaxic—being the

first to give way, then the thermogenetic, and lastly the thermolytic. Conversely, when a patient gets well, first the action of the thermolytic mechanism is restored, then that of the thermogenetic, and lastly that of the thermotaxic. A highly interesting, and in the treatment of fever, a most useful, study.

THE use of the thermometer as a means of diagnosing will now, or should, become less a "routine practice." As the *Journal (Brit. Med.)* says: We have been carried away too much by its application, and are frequently apt to be blind to the fact that its use is perhaps more empirical than any other means of diagnosis: for it does not tell us whether the increased temperature is due to an increased production of heat, a diminished loss, or to both these causes.

DR. Alfred Carpenter, one of the best of authorities, delivered an address at the last monthly meeting of the "Association of Public Sanitary Inspectors," on disinfection. He concluded by saying that the lines on which disinfection should be carried out were: Ventilation, aerial disinfection by chlorine or steam, lime washing, washing floors and furniture with solutions of mercuric chloride; steam heat for clothing, furniture, etc.; and sulphate of iron or chloride of lime in adequate quantities for flushing. If these means were effectively applied infectious diseases would be completely vanished from our midst, and any local authority which now allowed of their continuance was doing defective work.

OFTEN have we thought that some means could be readily devised whereby one could breathe the pure outdoor or cooler air while in a warm room. An apparatus is advertised in Europe, says the *N. Y. Medical Times*, by which a person is enabled to breathe the air from without while sitting in-doors. It consists of a tube communicating through the window with the external air, with an attachment to fit over the mouth and nose. The inventor claims that, as tubercle bacilli are destroyed by a low temperature, pulmonary phthisis may be cured by breathing frosty air through this apparatus.

Nor the slightest hardship, but an un-mixed benefit, the *Sanitary Era* claims, would be imposed on the poorest house-

holder by absolutely prohibiting the deposit of excreta or offal in any place without an immediate covering of dry soil. Every garden and door-yard contains the perfect remedy for all the evil and loathesomeness of the pestilential deposits existing everywhere in civilized countries, and which would also "pay" for the little labor required in the use of the remedy.

SOME extraordinary and instantaneous cures by hypnotism with suggestion are reported. The therapeutic suggestions, being made during the "sleep", or hypnotic state, were certain in their effects. The cases were not merely functional disturbances, but disorders depending upon anatomical lesions.

It is confidently predicted, says the *Sanitary Era*, that in five years the magnesium light will be as familiar as now is the electric light. The high cost has heretofore been a serious obstacle, which is said to be now removed by a new German process that has reduced the price from \$30 to \$8 a pound, with a prospect of still further cheapening. A wire of moderate size equals the light of seventy-five stearine candles; the cost is now but little more than gas, and it is absolutely safe. The magnesium is simply burned in lamps provided with clock-work movement.

IN the fifteenth annual report of the Medical Officer of the Local Government Board, England, reference is made to the cases of supposed scarletina in cows, from which it was thought the disease was communicated to the human organism, and to which we have referred on several occasions. Pathological changes are found in the bodies of calves—in the skin, lungs, pleura, spleen and kidneys, "completely coinciding" with the effects of the disease in man. And Dr. Klein has found in the blood of ordinary human scarletina a micro-organism identical in its morphological characters with that found in the ulcers on the teats in the cow-disease. The disease on the whole in the cow "bears a striking likeness" to human scarlatina.

WITH corrosive sublimate as a disinfectant or gemicide, Dr. Kliens experiments in the main agree with those of Dr. Koch, that the power of this substance to restrain the growth of, and in stronger solutions to kill,

certain micro-organisms, is greater than that of any other chemical substance with which experiments have been made. Non-pathogenic micro-organisms possess greater power of resisting this substance than do the pathogenic organisms. If a sublimate solution of the strength of 1 in 25,000 were allowed to act for ten or fifteen minutes on virulent anthrax bacilli from the blood of a guinea-pig, the bacilli did not produce fatal anthrax in sheep, and the animals were protected from subsequent infection with virulent anthrax material. Dr. Klein proposes a scheme for the protective vaccination of sheep in this way; the preparation of the "vaccine" is very simple, when compared with M. Pasteur's method, it being only necessary to mix a quantity of blood with a given bulk of the sublimate, and to keep the mixture for a quarter of an hour before using it.

On the remarkable prophylactic powers of corrosive sublimate, Dr. Cash has been making experiments, reported in the volume above named. It was found that a rabbit, after receiving during seventeen days an amount of corrosive sublimate equal to about a quarter-of-a-millionth of its weight (or to a rabbit weighing two pounds, about the 280th part of a grain per day), suffered but slightly and rapidly recovered after inoculation with anthrax virus which caused the death of undrugged animals in four days.

An epidemic of diphtheria, strongly suspected to have been caused by milk, has recently occurred at Ealing, England. Twelve or fourteen cases of a very serious nature have come under the notice of the Medical Health Officer, and among these there have been eight or nine deaths. "There is as yet no positive evidence of the exact cause of this sudden outbreak, but there is a strong presumption that milk was the vehicle of infection, for out of some thirty cases which came to the knowledge of the medical officer, twenty-eight were, it is said, persons whose milk supply came from the same dairy."

FOURTEEN more centenarians, making sixty-six in all, are now reported upon by the "Collective Investigation Committee" of the British Medical Association. Dr. Humphrey (Prof. of Surg. Univ., Cambridge,) in the report states that "The

greater number of these old people enjoyed life with fair vigor of body and mind, had good appetites and digestion, were and had been small or moderate eaters, and small consumers of alcohol and meat, and had little illness or ailment."

THE British Gynecological Society, at a recent meeting, Mr. Lawson Tait, F. R. C. S., in the chair, discussed the question, "Ought craniotomy to be abolished?" Statistics were produced to show that by a comparison of the relative mortality of craniotomy and the Sanger method of performing the Cæarean section, this question was rapidly approaching an affirmative solution. Dr. Meadows, who read a paper on the subject said, the rule which he wished to lay down was that in no case and under no conditions should a human life ever be sacrificed by the hand of the obstetric practitioner.

PASTEUR'S treatment of hydrophobia is yet far from satisfactory. After referring to some experiments in Germany, the *British Medical Journal* says:—"From the above experiments the conclusion may be drawn that M. Pasteur's method of conferring immunity on animals against the virus of rabies, requires still much further working out, before it can be considered safe or trustworthy; while as to human beings, there are as yet no valid reasons for the institution of a preventive treatment. On the contrary, there is a strong presumption that the actual disease may be produced by the preventive treatment itself."

THE medical faculty of France has this year 168 female students—namely, 83 Russians, 11 English, 7 French, 3 American, 2 Austrian, 1 Turk, and 1 Roumanian.

THE *British Medical Journal* cites a case of poisoning from the accidental swallowing of a piece of analine pencil.

It is maintained that there is in every living being an element of individuality which escapes the law of heredity, and which in man exalts itself into personality.

THE height of man attains its maximum at twenty-five years, according to the *American Lancet*. This is maintained till fifty. Then it diminishes, till at ninety it has lost three inches.

LIFE ASSURANCE AND TEMPERANCE.

The Temperance and General Life Assurance Company of Toronto is a "new departure," in Canada, inasmuch as it keeps in quite a separate class those who abstain habitually from alcoholic beverages and those who are "moderate drinkers." In England there are several companies doing business on this principle, and they have proved conclusively that it is a fact that "total abstainers" are longer lived than moderate drinkers, and being kept in a separate class they get the benefit thereof. We must, however, qualify somewhat the term "moderate drinkers," for nine-tenths of the so called are immoderate in their use of spirits. We know of many heavily insured, who never seem the worse of "liquor," but whose lives are materially shortened by its use; yet who would be longer lived with half or one-fourth the quantity than with none at all. Herein, as we have frequently pointed out, is the difficulty. Too high an estimate is placed upon the term moderation, and moderate drinkers are usually really intemperate without knowing it. The first year's work of the above named company, as shown by the first annual report recently issued, must be quite satisfactory to the managers. The *Monetary Times* says "the Company has made a good beginning and from the influential persons whose names appear in the directorate we look to see it make still further progress." There must be a large class now in Canada who will be glad to avail themselves of the special advantages of this company. Another feature of the company is that of mutual assurance on the graduated premium plan, also with "abstainers" separated. This, we believe, to be the principle of life assurance of the future. There is no reason whatever why insurers should pay two and three times over what will cover the risk on select lives, except it be to enrich assurance companies and pay princely salaries to managers. With a guarantee fund and a deposit with the Government, such as offered by the "temperance and general," there is no more risk than with the stock companies, and the cost will probably be less than half, or should be, with carefully selected lives, to which assurers should themselves attend, in a measure.

The important subjects, mostly original, which have been treated of in this journal during the past three or four months are, amongst others, as follows: Science of Health and its Popularization; Milk Supply and how it may be contaminated; Catching Cold; Temperance and Prohibition; Adulteration of Foods; Recent Experiments with Disinfectants; Health Officers and the Water Supply; Isolation in infectious Diseases; What to do with House Slops; The Patent Medicine Evil; Open Air for Consumption; The Public and the Medical Profession; And the Progress of Sanitation during the Reign of Queen Victoria.

A BACTERIOLOGICAL laboratory is to be established in Irkutsk, the capital of Eastern Siberia, a city of 40,000 people; a people which are thus, in Preventive Medicine, ahead of Canada.

NEBRASKA has established a state Board of health.

HEALTH MAXIMS FOR DAILY PRACTICE.

RISK a dollar or a hundred dollars, but don't risk your health, you may never regain it if lost.

SICKNESS is as surely poverty as health is wealth.

WHEREVER you are, endeavour to make sure that there is not a particle of decaying, waste, organic matter around about or near your dwelling or place of abode.

HAVE all used up waste stuff of every sort that can decay, or that can harbour decaying matter, destroyed—burned, or carried away from every dwelling.

FROM such waste comes foul air which befouls the blood and other fluids of the body.

LET in the fresh air to your house, night and day, even if you have to burn much extra fuel.

NIGHT air is not half so bad or dangerous as the air you have once breathed.

ALL this talk about reform in women's dress is becoming tiresome, says *The Doctor*. Let women wear seasonable underclothing, stockings and shoes, and forswear lacing, low-neck dresses, bare backs and bare arms, and it will not be worth while to discuss the merits of divided skirts, chemiloons and similar devices.

NOTES ON CURRENT LITERATURE.

THE CENTURY for April opens with the first of the series of papers on English Cathedrals, the introduction to which was printed in the March number—the text being by Mrs. van Rensselaer and the illustrations by Mr. Pennell. Upon this work Mr. Pennell has been engaged many months, and the illustrations printed in this article on the “Mother Church of England,” as Mrs. van Rensselaer characterizes Canterbury, show a union architectural faithfulness and picturesque interest unusual in drawings on such subjects. The edifice is shown from different points of view and in many aspects of light and shade. The “life of Lincoln is this month devoted to “the Territorial Experiment,”—the Kansas difficulties. Lincoln’s opinions and positions in regard to slavery fully set forth, partly in extracts from his speeches. Mr. Atkinson follows up in this number the valuable papers already contributed by him to *The Century* by another on “The Margin of Profits,” considering the question whether capital is securing an undue share of the joint product of labor and capital. Mark Twain appears in this number in the rôle of a humorous critic of the methods of popular education, in an article entitled “English as She Is Taught,” in which he gives some funny examples of the answers given by pupils in the Public schools of which the following are a few : *Capillary*, a little caterpillar ; *Emolument*, a head-stone to a grave ; *Equestrian*, one who asks questions ; *Eucharist*, one who plays euchre ; *Ipecac*, a man who likes a good dinner ; *Mercenary*, one who feels for another ; *Parasite*, the murder of an infant ; and so on.

IN ST. NICHOLAS, for April, we find, “The Story of the Merrimac and the Monitor,” the first of General Adam Badeau’s “War Stories for Boys and Girls,” with its graphic descriptions and spirited illustrations ; another but of a more peaceful type, is a charming article on “Harrow-on-the-Hill,” number three of the Four Great English Schools,” which Mr. and Mrs. Pennell’s graceful pencil and pen are making so attractive. But to many readers the most welcome contribution will be the jolly fairy operetta, “The Children’s Crusade,” by E.

S. Brooks, the author of the successful “Land of Nod.” It is easy to mount, yet affords fine opportunities for display. The music is simple and tuneful. This, with many other highly attractive parts, make this number one of the best yet issued.

ST. NICHOLAS for May, which just now, April 16th, since the above was written, has been brought in, seems hardly less attractive. We have not looked much into it but observe a lovely frontispiece, in connection with “Historic Girls,” “Catarina of Venice: The Girl of the Grand Canal,” afterwards known as the “Daughter of the Republic.” The Brownies canoeing in this number is very good.

A SANITARY Registration of Buildings Bill is before parliament in Great Britain.

PNEUMONIA is much more to be dreaded now than the small-pox, yet few people fear it, or anticipate it.

ANOTHER patient of Pasteur’s, the forty-fifth, a Spaniard, who was bitten by a wolf, has just died. He went at once to Paris and went through the “treatment.”

THE medical officer of health for the Stokesley Union, in his annual report, states that during the past year the death-rate for that place was only 8.8 per 1,000, and not a single death occurred from zymotic diseases.

JAPAN is going ahead of Europe in sanitation as in many other matters, says the *Sanitary Record*. The Imperial Institute at Tokio is, it appears, the only college in the world, as yet, that has a professor of sanitary engineering.

A FARMER of New Albany, Miss., was bitten last December by a mad dog. He applied a mad stone which was highly esteemed in the community, but all the same he died on February 21st, with the most pronounced symptoms of hydrophobia.

TYPHOID FEVER appears to have established a firm footing in all the Australian colonies. Although less severely felt in South Australia, it prevailed to a greater or less extent in all populated parts of this province during 1885-86, and in some places the disease assumed an epidemic character.