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HEALTH JOURNAL,

A MONTHLY MAGAZINE OF

PREVENTIVE MEDICINE

—EDITED BY—

EDWARD PLAYTER, M.D.

Public Health and National Strength and Wealth.

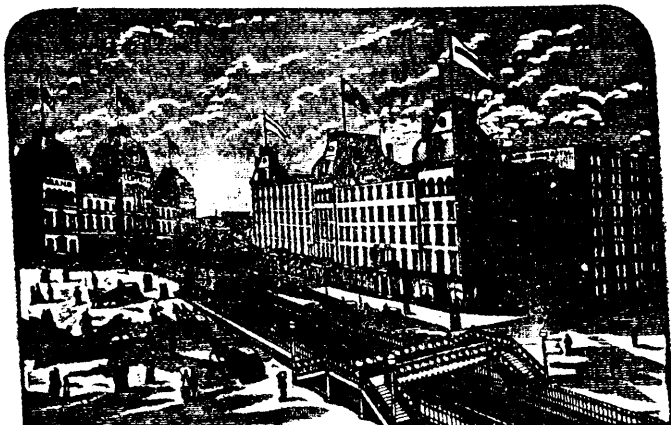
CONTENTS :

Prevention of Infantile Summer Diarrhœa and Cholera In- fantum.....157	Observations and Annotations— Chinese Exemption from Ty- phoid Fever—Typhoid Usual- ly Conveyed by Water— A Good Act in Iowa—Foul Infants' Toys—Cremation— Effects of Tea—Grosse Isle Quarantine—On Food Adul- teration — The Bed-Cure — Use and Abuse of Tobacco— Effects of the Cigarette—The Cough-Cure—Physiology of Pleasure — Consumption in the Dog.....183-186
Camping out.....164	Publisher's Specials—Johnston's Fluid Beef — Cod-liver Oil Emulsion — A Sanitarium, etc.....187
Prevailing Diseases and their Prevention—Consumption..167	Notes of Current Literature188
The Gospel of Health.....171	
Tubercular Consumption in Man and Animals—Extracts173	
Care of the Eyes.....175	
Miscellaneous Items — Misdi- rected Philanthropy — Milk and Its Dangers — Recent Observations on Infectious- ness of Tubercule.....179-180	
The Editor's Special Corner — Infantile Summer Mortality, Importance of Diet in—The Drowning Season—On Cook- ery.....182-183	

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The Canada Health Journal

VOL. X.

MAY, 1888.

No. 5.

PREVENTION OF INFANTILE SUMMER DIARRHŒA AND CHOLERA INFANTUM.

WITHIN the next three months, thousands of the promising little infants on this continent will have been laid away prematurely in their grave—thousands of the darlings of loving parents; the life of whom, with a little knowledge as to their proper care on the part of parents, might be preserved and carried over the trying period. Remember however that it is not the heat in itself that destroys the young life. "Little ones" like much warmth, and if properly clothed and attended would very rarely, in this climate, suffer directly from the high temperature alone.

The exciting cause of the high mortality in early life in the summer is now well known to be chiefly due to microbic life, to bacteria, which develop, grow and multiply in such myriads in the fermenting, putrefying, waste organic matter allowed to accumulate about the dwelling places of the little ones. These germs, for by this name they are commonly known, are not only breathed and so taken into the blood, where they interfere with the natural processes of life, but they are taken into the stomach with the baby food and there they interfere with the digestion already probably weakened by an injudicious diet, and cause such fermenting and irritating processes that digestion and nutrition become impossible and the little one succumbs. A previously erroneous diet acts as a predisposing cause, which while it debilitates by failing to properly nourish, directly paves the way for the readier, easier action of the disease germs.

In a recent work by A. B. Palmer, M.D., Professor in Medicine in the University of Michigan, we find the following: "There are other more particular causes concerned in the production of these affections, which require particular notice: Among these, aerial poisons hold a place; and the cases are numerous where exudations from decomposing organic matter, fermenting excreta and their filth, the gasses from sewers, cess-pools and privies, the foul air of crowded apartments, etc., have unmistakably been the causes of endemic and epidemic diarrhœa. Impurity of drinking water—water contaminated with the same matters, emanations from which float in the air, is another cause. Cases where diarrhœas have been clearly traced to this cause are too numerous to leave this an open question. The opinion prevails, more at the present than at and preceding time, that the cause is of a specific character—a peculiar microbe or ptomaine exciting this morbid state. The summer diarrhœa, with its exaggerations in the form of cholera morbus and cholera infantum, has striking resemblances to Asiatic cholera, and the evidence of a specific material in the production of that affection is too conclusive to admit of doubt. The analysis of these affections has given rise to the belief that some similar specific agent produces the former disease.

In a very striking paper recently read before the New York Academy of Medicine by Dr. Holt, of the New York Infant Asylum, great prominence is given, as an etiological factor to the food and the changes which take place in it in this class of diseases. Indeed he regards the immediate cause to be "the putrefactive changes which take place in the stomach and bowels in food not digested, which changes are often begun outside of the body." He thinks that "nearly all the diarrhœas and intestinal catarrhs of young children are essentially dyspeptic in their origin," and a similar view is held by Henech, of Berlin. The recent investigation in Europe and this country respecting the alkaloid poisons called ptomaines, produced in various organic matters which are used as foods, have opened up a field of great scientific and practical interest.

As Dr. Palmer says: "The causes of few diseases are bet-

ter understood and more controllable than those of this, and preventive measures are first to be considered." What are the preventive measures? They might be summed up in these few words: absolute cleanliness everywhere—everywhere near where the little one dwells, in order that it shall breathe pure fresh air—with suitable diet and attention to the skin and clothing. Absolute cleanliness is of the first importance, and if it cannot be obtained where the child usually lives—as in a town or village where there are filthy conditions which cannot be at once remedied, remove the child during the heated term to a clean healthy locality—to the mountains, the seaside or any elevated country place where, with pure air, pure water and pure wholesome food may be obtained. But remember, parents, as we have repeatedly pointed out, there may be, in any such locality, collections of filth, such as in privy vaults, cesspools or out of the way corners, stored for years, near the dwelling or the well, or other water supply. "Eternal vigilance" only will secure absolute safety for the babe in the hot weather. Make careful enquiry therefore as to the surroundings of the place where you would spend the hot part of the summer with the baby. Find out what is done with all the refuse of the household where you would stay, and see that not a trace of it is left to ferment anywhere near the house or water supply.

Having made sure of pure air and water, next consider the diet. During its first summer the infant should be nursed at the breast by the mother, if possible, if not, by a suitable wet-nurse, if one can be obtained; but it is almost an impossibility to obtain an unexceptionable wet-nurse. At the late meeting (last month) of the American Medical Association, Prof. Earle (Col. of Phys. and Surg. and Womens Med. Col., Chicago) said: "The greatest mortality of all climes and among all nations is due to the lack of mother's milk;" or it may be added, of an adequate supply of good mother's milk. The milk of many unhealthy or delicate mothers is not suitable for the infant. The nurse, whether the mother or another one, should be in good health and well nourished with a very judicious diet, in order

that she may supply ABUNDANCE OF GOOD milk. If the nurse's supply cannot be made both good and sufficient, we believe on the whole that next to this there is nothing better, nothing so good, for infants food as milk from a healthy well fed cow. Although cows milk contains more casein and less sugar than human milk, and the curd in cows milk is not so fine, the chief trouble is after all in the care of the milk after it has been taken from the cow, As we often have contended, and as we are pleased to find Dr. Palmer in his late work above mentioned stating: "As a rule, the mischief to the milk occurs between the cows udder and the human stomach.....Pails, cans, pans and nursing bottles and tubes must be absolutely clean, and by the frequent use of boiling water and whatever other means may be necessary the possibility of the presence of specific ferments must be prevented." Hence, we have found much benefit from giving the milk to the infant direct, warm from the cow, as soon as possible after it has been milked. In country places where a cow can be at hand and milked 3 or 4 or 5 times a day this can be easily managed.

The milk must not be given undiluted. If the child be less than five or six months old or not very vigorous, we would recommend the following: one-fourth of a pint of fresh cream with three fourths of a pint of warm water and half an ounce of MILK sugar, from a reliable druggist, and from one-eight to one-half pint, according to the age and vigor of the child, of new milk. This makes a food nearly of the composition of human milk.

Dr. A. Jacobi, Prof. of diseases of children in the New York Post Graduate School, in a recent paper, gives the following important directions on infant diet:—"The principal substitutes for breast-milk are those of the cow and goat. The mixed milk of a dairy is preferable to that of one cow. Cow's milk must be boiled before being used. Condensed milk is not a uniform article, and its use precarious for that and other reasons. Goat's milk contains too much casein and fat, besides being otherwise incongruous. Skimmed milk, obtained in the usual way, by allowing the cream to rise in the course of time, is objectionable, because such milk is always acidulated.....

Dilution with water alone may appear to be harmless in many instances, for some children thrive on it. More, however, appear only to do so; for increasing weight and obesity are not synonymous with health and strength. A better way to dilute cow's milk, and at the same time to render its casein less liable to coagulate in large lumps, is the addition of decoctions of cereals.....But cereals containing but a small percentage of starch are preferred. Barley and oatmeal have an almost equal chemical composition; but the latter has a greater tendency to loosen the bowels. Thus, where there is a tendency to diarrhœa, barley ought to be preferred; in cases of constipation, oatmeal. The whole barley-corn, ground for the purpose, should be used for small children, because of the protein being mostly contained inside and near the very husk. The newly born ought to have its boiled milk (sugared and salted) mixed with four or five times its quantity of barley-water; the baby of six months equal parts." The barley meal should be finely ground and be subject to long boiling; as should also the oatmeal, if used.

When the young child has to be fed altogether on artificial food, more care is required than when it gets some breast milk, too, at intervals.

During the second summer, after it is a year or so old, a child of good vigor and health will probably digest cow's milk undiluted, when good and fresh; which with good bread, at least a day or two old, should constitute the chief, if not the sole, diet. As we noted in our last issue, a lady who believed this, "carried her plump, rosy, but teething baby through the second summer in a city boarding house on three meals a day, of bread and milk alone, without an idle day. But her hard heartedness afforded a constant topic to her fellow boarders." In some cases a little water and a trace of sugar may better be added to the milk. In all cases where the milk is not given direct, warm from the cow, it should be boiled. Water for diluting should always be boiled. Any child would be perfectly satisfied and happy with such food, knowing no other; and any parent takes a grave respon-

sibility in giving a young child any but a most simple, yet nutritious diet. Indeed, to give a child anything but a simple diet of this kind until after its second summer is over especially is positively criminal. Any change in the diet, particularly during the first or second summer is more or less dangerous.

Regularity in the time of feeding is of much importance. Most authorities agree that every three hours is often enough to feed the youngest child, and three or at most four times a day for one a year old. More frequent feeding but tends to over-feeding and hence sure digestive trouble. To feed or nurse a child every time it cries, as some mothers do, is a most pernicious practice.

Pure cold water should be often offered to the child, at any time, but especially in warm weather, and all the child seems to desire of it; always, to the young infant, from a teaspoon. The little ones doubtless often cry from want of a drink of cold water.

A light cool sponge bath should be given to the little one daily, and it should wear flannels next the skin, of its body at least, night and day. During cool evenings and in the latter part of the summer when the weather becomes cooler be sure that the legs and arms are kept warm. Very thin soft flannel adapted to the most delicate skin may now be obtained from the Jaeger Sanitary Woollen System stores in New York and Philadelphia.

If such a course as we have pointed out be carefully practiced from early summer, the little one will be altogether likely to pass through the trying season without trouble. But if precautions have not been sufficiently practiced and the child's digestion becomes disturbed and diarrhœa follows, then the measures of PREVENTION which have been noted will, if promptly and efficiently carried out, be CURATIVE as well. Provide first of all the pure air of a healthy locality, pure water, a suitable diet, attend well to the skin and keep the body wrapped in soft flannel. If after a little time, with such prophylactic measures, the diarrhœa persists, some other remedies must be tried. A dose or two of castor oil may be given, to remove any ferment-

ing food or other irritating impurities from the digestive canal, and a little lime water added to the food. Dr. Holt, (N.Y. Infant Asy) recommends for a change of diet, instead of cow's milk, peptonized milk, wine whey, chicken or mutton broth, expressed juice from rare beefsteak or roast beef and in a few cases raw scraped beef (Peptonized powders for adding to the milk may be obtained from most druggists but great care must be taken that they are pure and fresh). Dr. Holt's remarks refer more particularly to New York and other large cities where it is impossible to obtain good fresh cow's milk. However, anywhere a change in the diet of the child may be sometimes necessary.

Dr. J. Lewis Smith, New York, writes as follows: (April 24, '88. Med. Times, Pa. June, '88): According to my observations, babies can digest dextrine readily, even those under the age of three months, who digest starch with difficulty. I have during the last two years employed in nursery feeding, with the best results, wheat flour, prepared by being boiled five days, dried in a bag and then grated and sifted, and placed two days in pans in an oven at a temperature of about 100°. The starch by this process is largely converted into dextrine. When kept for use, I believe it is more stable than the glucose preparations made by Liebig's formula which are found in the shops. But milk should be the basis of all infantile foods. We may use other foods without milk for two or three days in unsettled states of the stomach. If we use starchy food, it should be boiled several hours. Barley flour or oatmeal, thus prepared, will often agree with infants, but not so certainly as the dextrinized starch.

The utmost cleanliness of the nursing bottles and all the food utensils must be enjoined. Of tubes, Prof. Earle says: "I regard the ordinary nursing bottle with all these appliances, particularly for a prematurely born child, as a fraud and a snare. Such children should be fed from an ordinary ounce bottle with a rubber mouth piece."

If such treatment does not succeed in arresting the derangement, some antiseptic must be resorted to: but these

should only be given under the advice and superintendance of a competent physician. Prof. Dujardin-Beaumetz, of Paris, France, a very good authority, recommends as the best antiseptic, carbon-bisulphide water, with spirits of peppermint. Dr. Holt relies most upon salicylate of sodium. Creosote and naphthalin too are recommended and also the bichloride of mercury.

Opium and all its preparations—paregoric and “soothing syrups”—and all astringents are as a rule not only useless but often do much harm. Parents should never give any such medicines nor any of the advertised remedies or “sure cures” for summer complaint and such diseases. Remember, perseverance in hygienic measures such as recommended for the prevention of diarrhoea will usually effect a cure even after the disease has shown itself, unless the early symptoms be severe and the child not strong, when no time should be lost in consulting a physician.

CAMPING OUT.

THE “camping out” season is at hand and many within the next two or three months will have left the dust and turmoil of the city and the dust and monotony of even the small town to seek change and recreation in the camp. Before attempting camp life there are, especially for the inexperienced, many points to which, in order to secure the objects sought after and with a fair degree of comfort and indeed safety, some little serious thought should be given.

With a company of half a dozen or a dozen or two it is usually pleasanter; while it is less troublesome for each and less expensive. But secure sufficiently large sleeping tents; even canvass confines the air, and the ventilation must be well looked after; the more open the better. Take wife and children too or mothers, sisters, cousins or aunts, and make up a jolly group. It would be well to take, too, sets for playing tennis, croquet or ball; but not much reading matter. There is usually reading enough for eyes and mind at home.

In selecting ground, choose only a place that is high and dry, and a safe distance from any marshy spot or pool of stagnant water. Rocky, gravelly or sandy ground is best. It will be much better not to locate very near a stream; two hundred yards or so distance from it will be safer. At the edges of almost all streams are spots or bits of damp soil containing much vegetable matter which, in the processes of wetting and partial drying constantly going on in them, give rise to a certain amount, little or much according to circumstances, of malaria, and if it be ever so little, it is decidedly best to avoid it if you can. Most people in going to camp have a desire or need to improve their health and every whiff of air not as pure as it can be found lessens the chances of improved health and vigor. It will be better usually to camp near only a few trees than in a wood; the air will probably be purer and insects less troublesome, as these will be also not too near water.

Pure water, after having secured as pure air as possible, is of the next importance. And unboiled water is hardly ever safe to drink now from either well, spring or stream, unless in a locality in the mountains or far from inhabited places. Some impurities, possibly of the worst sort, either from malarious soil or collections of foul matters, may be near its source, and these, although the water may be seemingly to the senses clear and pure, it may contain and convey into your body. It should be an invariable rule NEVER to use for drinking purposes unknown, untested water which has its source in or flows through an inhabited country until after it has been thoroughly boiled. Then it is absolutely safe. Thorough boiling for a few minutes removes all danger. If desired cold, have a hole dug deep into the ground and let it down into this, in a clean covered vessel for an hour or two and it will be cooler than the water of a stream or of most springs.

Next arrange for the food and you will have considered the three great essentials of life. Don't take rich luxurious and indigestible foods with you, most people get too much of such food at home. Prepare to live on a plain, wholesome diet: Milk, eggs, some meat, in the form of game if you can get it,

or that has been well preserved, fish and fruits, with good bread and butter. A writer in the Housekeeper gives the following novel method of cooking the smaller fish, which is probably well worth trying; while he also gives some valuable advice about guns, which we quote below: Remove the entrails and wash clean. Then rub on salt and pepper within and without. Have a bed of live coals prepared and take some coarse brown paper, the heavier the better, wet it, wrap each fish in a piece of it, and lay on the fire. Turn them often, and as the paper dries keep wetting it to keep it from burning. In from ten to twenty minutes, depending on the size your fish will be done. Remove from the fire, unwrap the paper, and you will find that the skin and scales will lift right off with it, leaving one of the finest specimens of successfully cooked fish that any one could wish for.

It is well to divide the work in a camp, so that it shall not fall unfairly on the most willing; while the daily duties of each can be changed from day to day if desired. Keep every thing about camp scrupulously clean and carry all refuse even all slops a safe distance away. A small canvas or other sort of out closet or two should be provided where there are women or girls in camp. With all such essentials properly provided for, the longer and more you camp out the better.

Now a caution about guns, which are often taken to camp. Never take a gun crippled in any way or degree into camp. Better far have fewer guns or none than one that is in any way defective. "More than half the accidents that happen come from this cause; it is almost invariably the crippled gun that does the damage. Never permit a loaded gun to be kept in the tent, unless in an uncivilized place or one where wild animals abound. Instead, make it a rule to draw every charge, or fire it off before the gun goes into the tent." Have a careful man or boy appointed to attend to this.

A RECENT writer in the British Medical Journal declares that excessive tea drinking is the cause of early decay of the teeth, possibly through so altering the normal secretions of the mouth as to permit the development of acids and micro organisms.

PREVAILING DISEASES AND THEIR PREVENTION.

1.—CONSUMPTION (Concluded).

WE will conclude this paper with a description of the exercises proposed by Dr. Dally for enlarging the lungs and a few remarks on Dr. Dettweiler's Sanitarium for consumptives at Falkenstein; all of which may be profitably considered in the prevention of this dread disease. Dr. Dally's exercises are as follows:

1. The first or normal is the vertical position, perfectly erect, as if standing against a wall, the arms hanging by the side. This position should be taken and kept ten minutes at a time, a number of times a day.

2. The two arms and the hands are extended horizontally forward, the palms facing. The hands are separated slowly (till they point from the side,) whilst the chest is inclined forward. Remain in this position thirty seconds, and inspire deeply by the nose. Return to the initial position and expire. Execute this movement six times.

3. The arms hang by the side; raise them upward—the fingers well extended—above the head, the palms looking forward. Take a deep inspiration. Let fall the arms alongside the body, palms open, and expire slowly.

4. Double rotation at the side. The subject being in the normal position (first one) executes as large as possible double rotation laterally, the arms well extended, and inclining the trunk forward each time that the arms are thrown behind, and never projecting the abdomen forward.

5. The arms are crossed horizontally, the palms looking backward. Flexion lateral, alternately, of the trunk bending from side to side. The flexion will be then regular, transverse, the abdomen drawn in; the legs extended apart, the pelvis (hips) fixed. The limit of the flexion is the vertical position of the elevated arm. Mild inspiration during the flexion, at its termination expiration. Execute these movements six or eight times.

If faithfully carried out, these exercises improve the form

and capacity of the thorax and check the development of consumption.

The great obstacles to this hygienic medication in our civilization are "said to be habitual laziness and idleness, and the indisposition to devote time and interest to such means."

Dr. Dettweiler's sanitarium in Falkenstein,* was founded in 1874 by a stock company—the shareholders not to receive more than five per cent dividend on their investment, the surplus income to be used for the improvement of the institution, and, later on, for the establishment of similar places for the treatment of the poorer classes. It is situated on the southern slope of the Taunus mountains, only about 1400 feet above the sea level, near Cronsberg, about two hours ride from Frankfort. It consists of three large buildings, together with gas-works, cow-stables, laundry, etc. The largest of the buildings present the form of a horseshoe, to protect the inhabitants from the rather heavy north winds that prevail there occasionally. The next building, connected with the others by an arcade, contains the large, high, and well-ventilated dining-room, the kitchen being outside the building. The third building. The third building contains the residences of the medical superintendent and his associates.

The climate of Falkenstein is not alleged to have any specific influence on the disease; it does not differ in any essential part from that of southern Germany in general, except that during July and August the temperature is quite high. The air is comparatively free from dust and other impurities. Well cultivated pine and oak forests are in the immediate neighborhood, with numerous attractive walks winding through them, and with plenty of seats and places for rest.....In the institution the smallest details of the patient's life are controlled by the supervising physician: the daily exercise in the open air, the use of lung-gymnastics, the administration of stimulants, even the changing of garments, are matters not left to the judgment of the patients.

New patients are not permitted to walk outside of the im.

*This description is chiefly from the *St. Louis Courier of Medicine*.

mediate vicinity, or even to remain outdoors for a long time, until after the first careful examination, generally made the day after arrival; then the limit of outdoor exercise is agreed upon, also the hours of rest in the open air, and the first instruction in lung-gymnastics is given. Under ordinary conditions the duration of outdoor living is increased daily and the greatest importance is placed in "resting" in the open air. Over ninety *chaises-longues*—lounges made up of rattan and upholstered with horse-hair—are placed on the verandas, the arcade, and the rotating pavilions, and the patients after being acclimated, spend many hours daily—dressed properly, and covered with blankets in accordance with the season—lying upon them. Great importance is placed in this "permanent air treatment," and it is carried out during the coldest weather, while now and ice cover the surrounding ground. During the winter before last, which was an exceptionally cold one, a daily record was kept, and it was found that some of the convalescing and more energetic patients extended the so-called *jour medical* to ten and eleven hours: many of the advanced cases spent at least two or three hours on their lounges. Only in exceptional cases—in highly anemic subjects, and those suffering from continuous and decided fever with frequent chills—is the permanent air-treatment not indicated. Six hours is the average time spent on the lounge; many remain there until ten o'clock at night, passing the time reading or writing, playing dominoes or chess, the verandas and pavilions being well lighted after dark. the good results obtained by this permanent air treatment are immunity against the unfavorable influences of sudden changes of temperature, diminished cough, increased appetite, and lessened fever.

Another feature of this treatment, supposed to strengthen the system and harden it against unfavorable external influences, is the systematic use of massage and the regular daily rubbing down of patients, early in the morning and before rising, by trained nurses' first by means of dry towels, afterwards with alcohol, and occasionally with salt-water. The cold douche is added in most cases to the other invigorating measures.

Much attention is paid to diet. All the delicacies of the season are provided, and much attention is paid to the individual wants of each case. As a rule, the patients take their meals together, one physician being always with them, and the time for meals is thus arranged: First breakfast, consisting of coffee, tea, chocolate, or milk with cakes of rolls, and butter and honey, from 7 to 8.30 A. M. Second breakfast, bread and butter, with milk, always as much as desired, or bouillon and cold meat, at 10 A. M. Dinner, the principal meal, consisting of soup, fish, broiled meat or roast, with a variety of vegetables salad and compote and desert, at 1 P. M. With the dinner, each patient drinks from one third to one-half a bottle of Rhine or Hungarian wine and a cup of coffee. At 4 o'clock P.M., an additional lunch to those that require it of fresh milk, and a nice little room is arranged for this purpose in the cow-stable. Lastly, a warm supper is provided of soup, warm and cold dishes, of meat, etc., at 7 P. M., with a glass of wine. Instructions are given to eat slowly and chew well; milk, especially, which is used freely, must be taken only a swallow at a time. The food is well prepared and cooked rather rich, and the manner of cooking is often changed. Dettweiler himself directs the management of the kitchen. He says that few of the patients do not enjoy the meals at Falkenstein, and 86 per cent of all patients gain an average of nine pounds during a period of less than three months, while 14 per cent do not increase in weight. The free use of alcohol is also a feature of Dettweiler's treatment. He says that he would give one half of the entire materia medica for this one remedy. The phthisical patient with a fair appetite and free from fever does not require more than three-fourths to one bottle of good Rhine wine a day: if, however, anemia be a prominent symptom, with occasional chills, he orders the "brandy treatment," two teaspoonfuls of brandy to be taken every hour or two from morning till night, amounting to eighty grammes a day, to be followed by a brandy milk-punch before retiring.

The laws of hygiene are strictly enforced; the patients sleep with the window open during the night, fresh water is

at hand, the greatest cleanliness prevails, the drainage is the best, and cuspidores are at hand filled with a solution of bichloride of mercury, to receive the expectoration of the patients. Dr. Dettweiler has lately published a pamphlet relating to the permanent cure of seventy-two cases of pulmonary consumption by his "permanent air and rest treatment," with the administration of such a liberal and rich diet as to amount almost to over-feeding.

THE GOSPEL OF HEALTH.

T. De Witt Talmage some time ago preached a sermon in the Brooklyn Tabernacle from the text, "Till a dart strike through the liver"; Prov. 7 c. 23 v. The following is an extract from this sermon.

I preach to you this morning the 'gospel of health. In taking diagnosis of the diseases of the soul, you must also take diagnosis of those of the body. You may have the head filled with all intellectualities, and the ear with all musical appreciation, and the mouth with all eloquence, and the hand with all industries, and the heart with all generousities; and yet "a dart strike through the liver."

Another practical use of this subject is for the young. The theory is abroad that young men must first sow their wild oats, and afterwards Michigan wheat. Let me break the delusion. Wild oats are generally sown in the liver, and they can never be pulled up; they so pre-occupy that organ that there is no room for the implantation of a righteous crop. We see men about us at eighty,—erect, agile, splendid old men. How many wild oats did they sow between the ages of eighteen and thirty?—None, absolutely none. God does not very often honor with old age those who have in early life sacrificed swine on the altar of the bodily temple. Remember, O young man, that while in after life, and after years of dissipation, you may, perhaps, have your *heart* changed, religion does not change the liver. Trembling and staggering along these streets, are men

all bent, and decayed, and prematurely old, for the reason that they are paying for liens they put on their physical estate before they were thirty. By early dissipation they put on their body a first mortgage, and a third mortgage to the devil; and these mortgages, are now foreclosing, and all that remains of the earthly estate of these men the undertaker will soon put out of sight. Many years ago, in fulfillment of my text, a dart struck through their liver, and it is there yet. God forgives, but outraged physical law never, never, never. That has a Sinai, but no Calvary.

Stephen A. Douglas gave the name of "squatter sovereignty" to those who went out West and took possession of lands, held them by the right of pre-occupation. Let a flock of sins settle on your heart before you get to twenty five years of age, and they will, in all probability, keep possession of it by an infernal squatter sovereignty. "I promise to pay back at the bank five hundred dollars, six months from date," says the promissory note." I promise to pay my life, thirty years from date, at the bank of the grave, "says every infraction of the laws of your physical being.

That young man smoking cigarettes and cigars has no idea that he is getting for himself a smoked liver. That young man has no idea that he has by early dissipation so depleted his energies that he will go into battle only half armed. Napoleon lost Waterloo days before it was fought. Had he attacked the English army before it was reinforced, and taken it division by division, he might have won the day; but he waited until he had only one hundred thousand men against two hundred thousand. And here is a young man who, if he put all his forces against the regiment of youthful temptations, might, in the strength of God, drive them back, but he is allowing them to be reinforced by the whole army of mid-life temptations; and when all these combined forces are massed against him, and no Grouchy comes to help him, and Blucher has come to help his foes, what but immortal defeat can await him?

Some years ago a scientific lecturer went through the country exhibiting on a great canvas different parts of the

human body when healthy, and different parts when diseased. And what the world wants now is some eloquent scientist to go through the country, showing to our young people on blazing canvas the drunkard's liver, the gambler's liver. Perhaps the spectacle might stop some young man before he comes to the same catastrophe, and the dart strike through his own liver.

My hearer, this is the first sermon you have heard on the gospel of health, and it may be the last you will ever hear on that subject ; and I charge you in the name of God and Christ, and usefulness, and eternal destiny, take better care of your health. When some of you die, if your friends put on your tombstone a truthful epitaph, [it will read : " Here lies the victim of late suppers ; " or it will be : " Behold what chicken salad at midnight will do for a man ! " or it will be : " Ten cigars a day closed my earthly existence ; " or it will be : " Sat down in a cold draught, and this is the result ; " or it will be : " Went out without an overcoat, and took this last chill ; " or it will be : " Thought I could do at seventy what I did at twenty and I am here ; " or it will be : " Here is the consequence of sitting a half day with wet feet ; " or it will be : " This is where I have stacked my harvest of wild oats ; " or, instead of words, the stonecutter will chisel for an epitaph on the tombstone two figures ; namely, a dart and a liver.

TUBERCULAR CONSUMPTION IN MAN AND ANIMALS —EXTRACTS FROM AUTHORITIES (Concluded).

" Gerlach, of Berlin, thus describes the results of his experiments : 1. The tuberculosis of cattle is very infectious 2. The tubercles covering the serous membranes, as well as those in the other organs, are as infective, and produce the same tubercles as the tuberculous matter of the lungs. The identity of pulmonary phthisis of cattle and general tuberculosis cannot be doubted. 3. Infection can be produced after inoculation, as well as after ingestion, of the tuberculous matter. 4. The *flesh* of animals affected with tuberculosis

possesses, in certain tuberculous matter. 5. The temperature of boiling water destroys usually the infective principle; though boiled tubercles often, nevertheless, preserve a certain degree of virulence....Muscle, being, in general, a bad conductor of heat, the high temperature only reaches its interior after some time has elapsed. Gerlach experimented with uncooked milk, and asserts that the infective properties of this fluid can no longer be doubted or denied; milk from tuberculous cattle will produce phthisis in creatures fed upon it.—Geo. Fleming, F. R. S. S., &c.

“ To-day after ten years of experimental observations by Villeman, Viscar, Klebs, Zurn, Bollinger, Leisering, Chanveau, Bagg, Semmer, Guenther, Harms, Biffi, Virgad, Gerlach, Buhl, Tilbury, Fox, Burden Sanderson, and a host of others, it has been definitely established: 1st, that the tuberculosis can be transmitted from animal to animal, from man to animals, and presumably from animals to man, by inoculation, or by the accidental contact of tuberculous matter with a raw or abraded surface; 2nd, that the raw tuberculous matter taken from man and animals and eaten by other animals may determine tuberculosis in the latter; 3rd, that even the flesh of tuberculous animals will sometimes produce tuberculosis in animals that consume it, though with less certainty than if the tubercle itself were taken; 4th, that the milk of tuberculous animals will at times produce tuberculosis in susceptible subjects, and above all where the morbid deposit has taken place in the udder; 5th, that cooking of the tuberculous matter gives no guarantee of protection, as flesh is a poor conductor of heat, and tubercle that had been boiled from a quarter to half an hour has readily infected a number of animals that partook of it; 6th, that tubercle matter mixed with water and thrown into the air from an atomizer causes with great regularity the development of tubercles in the lungs of animals respiring such air....In a case that recently came under my notice in Brooklyn, N. Y., a family cow was found in a advanced state of tuberculosis, and the owner (William Martin) and his wife were evidently rapidly sinking under the same malady. In another

case reported to me by Dr. Corlies, of New Jersey, a family cow supposed to be suffering from the lung plague was found to be afflicted with tuberculosis instead, and the owner's wife (a consumptive), who had been making free use of the milk warm from the cow, was persuaded to give it up, and underwent an immediate and decided improvement. It is for infants and adults, who are somewhat infirm or out of health, that the danger is the greatest. The interests involved are almost imitable.—J. Shaw, V.S., Prof. Vet. Med., Cornell Univ., in U. S.—National Health Bulletin.

“Several medical men of prominence, both here and in England, have lately maintained that tuberculosis is often imparted to human subjects by milk from diseased cows, and Prof. Otto Bellinger, of the Munich University, one of the highest authorities in Germany, has sustained their position, in a paper recently read in that city. He said that repeated experiments show that the milk of tuberculous beasts has a very decided contagious influence, and reproduces the disease in various animals, and that its noxious properties cannot always be expelled even by boiling. The Professor enjoins upon farmers the necessity of taking the strictest care of their stock, and upon people generally the greatest care as to the quality of milk they use. Rigid measures should be adopted everywhere to exclude distempered cattle from dairies. This has been done in the associated dairy established recently in Munich, and will have, it is believed, excellent hygienic effect. All cows are there kept under the closest medical supervision, and at the slightest suspicion of tuberculosis are immediately removed.—Cohnheim—assisted in his experiments by Selomonsen—Reported to the Leipsic Faculty of Medicine.

“The Secretary of the Royal Agricultural Society, Mr. Jenkins, when at Hanover, visited the new cattle market and slaughter-houses, where he found that every carcass was submitted to a microscopical examination of experts before being allowed to be sold. In one month, out of 637 head of cattle thus inspected, sixteen, or $2\frac{1}{2}$ per cent., proved to be more or less affected with tuberculosis or consumption, and were in-

stantly condemned, the disease being held to be communicable to human beings through meat taken as food. In London no such provision is exercised, and if the proportion of affected animals is the same as at Hanover, it follows that 7,500 head of cattle which have suffered from the disorder are eaten in the metropolis every year. Not pleasant reading unless we are vegetarians.—Live Stock Journal.

“This disease prevails extensively among such animals all over the world, and especially in populous and crowded localities. Observations in Mexico have led to the conclusion that thirty-four per cent. of all beasts slaughtered there were more or less affected with this disease, and probably fifty per cent. of the cows kept in large towns were thus diseased. The fact that this is not more generally recognized is of course owing to the animals being slaughtered before the disorder has attained any very noticeable development. If cows, like human beings, were allowed to die from natural causes, the proportion succumbing to tuberculosis would be probably much greater.—Dr. Heath, President of the American Farmers Club; in London Medical Record.

“A congress of physicians and veterinarians will be held in Paris from July 25-31, 1888. The subjects for discussion proposed by the committee on organization are:—1. The dangers incident to the use of meat or milk from tuberculous animals, and the way to escape them. 2. The human races, the species of animals, and their organic surroundings in respect to their proneness to tuberculosis. 3. The channels for the introduction and for the propagation in the economy of tuberculous virus, and measures of prophylaxis. 4. Early diagnosis of tuberculosis in man and animals.—Med. and Surg. Reporter.

“Prof. D. E. Salmon, D. V. S., of the Bureau of Animal Industries in the country (U. S.), believes that tuberculous milk is an exceedingly prolific source of consumption in the human family. From the direct experiments of tuberculous made upon the lower animals, we have the strongest evidence that infection of the human subject, especially children, might readily follow the use of such milk. The identity of tubercul-

osis in animals to consumption in man has been fully established. The germ, or bacillus, is morphologically the same and there is no distinction in the pathological lesions. It is also positively asserted that there are clinical observations proving the transmission of tuberculosis from animals to man through the use of tuberculous milk. In the report of the Bureau of Animal Industries for 1884 it is stated that certain herds were supplying New York city with milk containing twenty, thirty, and even fifty per cent. of animals affected with the disease. In some districts in New York can be shown large herds with 90 per cent. the subjects of tuberculosis; and in this connection it is asserted that 29 per cent. of the adult males dying in New York city are tuberculous.—Last report (for 1887) of the New Hampshire State Board of Health.

CARE OF THE EYES.

NO other organs of the body are so noticeable or conspicuous and no others are so liable to be abused as the eyes; consequently, these organs need a little extra or special care. They are perhaps the most delicate of all the organs of sense; while they rule as it were the expression of the whole countenance. Beauty and charm of face depend much more upon the eyes than upon any other organ or part. The beauty and charm of the eyes too depend very largely upon the care they receive. And whatever the color, form, size and general appearance of the eyes, they may always be improved by care and attention.

A part from the general health, upon which brightness of the eyes largely depends, light is of the first consequence in the preservation of the organs. Always have plenty of light, but not of too bright or glaring a character, either bearing directly, or reflecting, on the eyes. One should sit with the back to the light and let the rays shine over the shoulder on to the work or book; and never read or work with a poor light, with a dim lamp or in twilight—not for a

minute. Much reading or fine work by any artificial light is injurious to the eyes. The electric light is the least objectionable. Late hours, with artificial lights, and losing a large part of the early daylight in sleep, is probably worse for the eyes than for any other part of the body. Plenty of sleep is essential to the preservation of the eyes.

After steady hard work with the eyes for a long time, and when they feel tired, it is a good practice to bathe them well, that is the lids, with water at a temperature above blood heat, or just as warm as can be borne with comfort—on the hot side, but only agreeably hot.

The eyes should be well bathed at least once a day in cold water; and once a day is probably as often as is desirable. But we are opposed to the practice of washing the inside or ball of the eye, as we see sometimes recommended; that is, of opening the eyes and shutting them, or winking, with the face or eyes in water, either warm or cold. Ordinary water is too irritating for the delicate membrane covering the eyeball. The natural fluid secreted by the lachrymal gland—the tears, are usually sufficient to keep the eye ball itself in good and clean condition. We have known harm to result from using water in this way. Water applied only to the outer surface is enough.

MISCELLANEOUS NOTES AND SELECTIONS.

MISDIRECTED PHILANTHROPY—Dr. Collanmore at the recent Ohio state Sanitary Convention said:—The medical men here present will testify that never have donations by private individuals to the cause of medical education been more freely offered than for the past few years. If the public thus appreciates the advantages of contributing toward the cure of disease, so much the more ought it to recognize the desirability of the prevention of disease. And yet you are aware that this is by no means the case. The organization of instrumentalities for the furtherance of sanitary science progress but slowly. The

great public, the chief beneficiary of these designs, is slow in thought, conservative, even careless.

THE bedding of the poor, after cases of illness from infectious disease, is frequently pawned and so the infection is spread, the N. Y. Medical Journal draws attention to this, and states that in Paris, France they have in use a large cylinder mounted on wheels, looking for all the world like a steam boiler or a fire-engine. Into this all such infected articles are put and subjected to superheated steam. It can be drawn by a horse wherever it is wanted. "During the few months that this plan has been working thousands of old mattresses, pillows, covers, and clothes of all sorts have been steamed: and it is beyond question that millions of the invisible and dangerous microbes have been destroyed, and that another great step has been taken toward the millennium of cleanliness, and therefore health, in modern cities."

SCARLET FEVER IN THE COW.—The Sanitary Journal Glasgow (May 1888) says: There can be no doubt that the epidemic of scarlet fever which recently occurred in the west end of Glasgow had its origin in the cattle of a dairy farm suffering from some disease to, or identical with, human scarlet fever.

THE house top as a health resort, is the subject of a suggestive article in the Medical and Surgical Reporter. Several large cities we are told have popular resorts high up above the ground to be reached only by steam elevators. The upper strata of air are usually much purer than those nearer the earth. "Lately Dr. G. M. Smith, of New York, has proposed that the roofs of the city houses shall be systematically occupied, for the sunlight and fresh air which can be there obtained, and has urged the devising of some plan by which it can be made feasible."

ELECTROPLATING EXTRAORDINARY.—According to the Electrical Review medicine can be introduced into the human system by electricity. The electrodes of a battery are saturated with the selected remedies and applied locally to the skin. Experiments show that there is actual absorption of the medicine into the system.

THE PUBLIC HEALTH FOR APRIL.

THE total record of deaths in April in the twenty-seven cities and towns in Canada which now make monthly returns to the Department of Agriculture in Ottawa, containing a total population of over 700,000 persons, was 1,404; or smaller by 27 deaths than the record for March. But there were no returns from Three Rivers, from which the average is about 20 deaths per month. April being shorter by a day than March, the mortality was therefore a fraction higher in April than in March, or at the rate of about 24 per 1,000 of population per annum.

While in Montreal, Toronto, Halifax, St. John, London and Winnipeg there was a decline in the mortality in April as compared with March, in Quebec, Hamilton, Ottawa and Kingston there was an increase; the largest proportionate increase being in Ottawa.

The scarlet fever epidemics which had prevailed in Winnipeg, Halifax and Windsor have evidently abated. There was from this disease a total of 16 deaths, while there were 20 in the previous month. One death or more from it was reported in Montreal, Toronto, Quebec, Halifax, Ottawa, Winnipeg, Charlottetown, Chatham, Windsor and St. Hyacinthe; hence it prevailed in these places.

From diphtheria also there was a decline in the mortality in April as compared with March—from 95 to 88. Of these 88 in April, 34 were in Montreal, 8 in Quebec, 8 in Toronto, 10 in Hamilton, 6 in Ottawa, 5 in Hull and 7 in Sorel; making 78 of the 88 in these 7 places.

The record of deaths from scarlet fever fell in the same period from 22 to 11; 5 of the 11 in April having been in Montreal.

From all the zymotic diseases the total record fell from 210 to 188. The total average mortality from these diseases in April, in all the cities and towns, was at the rate of about 3 per 1,000 of population per annum. The rate in Toronto and Quebec was a fraction less than the average; in Montreal it was 3.7 per 1,000; in Hamilton, 4; in Ottawa, 5; and in Hull, 7, per 1,000. In Sorel it was even much higher than in Hull and in other of the smaller places it was high.

There was too a decrease in the mortality from Constitutional Diseases, but an increase in that from Local and Developmental Diseases and from violent deaths.

In April, 1888, the mortality was just about the same as in April 1887.

THE EDITOR'S SPECIAL CORNER.

THIS month we give a good deal of space to the very important subject, especially at this season, of the chief causes of the high infant summer mortality and its prevention, which bears strongly upon infant diet. The Committee on Dietetics and the Section of Diseases of Children of the American Medical Association have most wisely taken up the consideration of the question of Infant Feeding. We are pleased to find that the report of the sub-committee on Infant feeding, but just published in the Philadelphia Medical Times (June '88), is fully in accord with the views we have given in our special article on this subject in another part of this number.

IN the case of an infant, or a child under ten months of age, deprived of breast-milk, the report states, the artificial substitute provided should be made to correspond with human milk as closely as possible, both in its chemical, constitution and in its physical characters. Fresh unadulterated cow's milk, when PROPERLY PREPARED, is an acceptable substitute for breast-milk. That is, prepared by diluting with something that will divide the curd. As a rule, raw starch is inadmissible in the diet of young infants, because the digestive powers of the infant are rarely sufficiently active to convert crude starch into a soluble form. The starch must be converted into glucose by LONG boiling. Great care must be exercised that any peptonizing powders which may be used are perfectly good and fresh. Practically, Dr. Earle says, "they disagree with a considerable number of babies."

THE Committee are retained and are to continue their investigations. The Medical Times suggests that the "Association should define what constitutes a perfect food, and leave the manufacturers to come up to the standard so set. As the Czar said, when he drew a straight line to represent the course of the railway. 'There is your road; let the people move up.'" Not one of the multitudinous infants foods in the market, each and every one of which, according to the manufactures, are better than all the others, was recommended by the committee.

THE drowning season is at hand and within the next three or four months many lives will be lost from bathing and boating in deep water. Many of these lives might be saved if it were an invariable rule with every one who could not swim well never to go into or on water beyond the depth of the individual; and never when over heated to go into the water. But alas these rules will be followed but by few and many will suffer. If the thoughtfulness and watchfulness of parents were more exercised, and children were taught fully the art and practice of swimming, fewer lives would be sacrificed.

BEARING upon the art of cookery the N. Y. Medical Journal has a good article, under the head of the Physician and Domestic Reform. Cookery and agriculture are arts of civilization. Savages understand neither: said Count Rumford. "The friends of social improvement are now called upon to

lend a hand and rescue the preparation of food from the hands of the raw material that pours in upon us from various foreign countries. Why should not the term *lady* be restored to its old meaning of loaf-giver, loaf-maker? Make good cooking fashionable and the thing is done. Of the imperative necessity of this movement there can not be the slightest doubt. It is a notorious fact that our kitchens are the strongholds of ignorance, prejudice, irrational habits, and mental vacuity, with the result that Americans suffer beyond any other people from wasteful, unpalatable, unhealthful, and monotonous cookery."

ANNOTATIONS AND OBSERVATIONS.

Dr. UNDERWOOD, Customs Medical Officer at Kiukiang, China, believes from observations there, that the comparative immunity of the Chinese in that region from typhoid fever, notwithstanding most of the factors favoring it are present in abundance, may be attributed to the fact that cold unboiled water is rarely or never used when tea can be had.

ACCORDING to Pasteur and Chamberland, the typhoid infection is in ninety-nine cases out of a hundred communicated through the drinking-water derived from streams or wells.

A GOOD ACT has passed the Iowa legislature, which requires druggists to label every package of poison they sell with two anti-dotes to the drug, as well as the word "poison."

INFANTS TOYS should be systematically cleansed, the Cincinnati Eclectic says. The child besavors the implement several times a day, and leaves saliva in the rattle or whatever it is, as a culture bed of bacteria. This condition of things goes on till the toy is a magazine of animal poisons, to contaminate and re-contaminate the innocent victim of thoughtless inattention.

CREMATION in Italy, a correspondent of the London *Times* states, has not made such headway during the last two years as it did at first. The number of persons burnt last year in that country were 165 as against 181 in 1886.

THE important developments of recent scientific investigation with regard to the bacillus of tuberculosis, the infectious character of the disease, and its apparent origin in unhygienically kept domestic animals that may communicate it to man through milk and meat, with other influences effecting the disease, have resulted in the calling of an international congress for the consideration of these and other subjects related to consumption, at Paris, from the 25th to the 31st of next July.

ON the physiological effects of tea, Dr. Bullard, of Boston, has made a series of observations, which indicate that the action of tea is cumulative, and also that its effects become manifest earliest in the weak and ailing. The average amount necessary to cause toxic symptoms he puts under five cups of the usual strength daily. A liberal allowance, The British Medical Journal

states, and "it is certain that in the long run far less than this quantity would suffice to bring about chronic tea poisoning—dyspepsia, palpitation, nervous and neuralgic affections, etc. If the dyspeptic symptoms be attended to early, the graver results may be averted; but, unfortunately, it is characteristic of the abuse of stimulants that the patient generally relies on the poison to alleviate the effects to which it has given rise."

THE owner of a twenty-acre lot, enclosed with walls, in the neighborhood of Rheims (special Paris cor. Therapeutic Gaz., Feb., '88), was greatly troubled with rabbits, which had multiplied and caused great damage. Neither shooting nor ferrets were of any avail, and the owner applied to Pasteur. He accepted the invitation, sent his nephew with six litres of his best chicken-cholera "bouillon." The stuff was, on December 23, poured on some hay placed near the burrows. The next morning there were nineteen dead rabbits lying about, and on the 26th, twelve more, but no trace of a living rabbit could afterwards be found. Later on holes were dug down to the burrows, and there groups of five, six, or ten rabbits were found dead in various places, victims of the virulent microbes.

THE Annual Report of Grosse Isle Quarantine Station, under the able management of F. Montizamber, M.D., F.R.C.S., shows that the regulations issued last summer prevent all possible evasion of quarantine inspection on the part of incoming vessels, by the order that no vessel from outside of Canada can enter at the Custom House without first exhibiting its quarantine clearance admitting it to full pratique; and by a further clause the hours of work and inspection at the quarantine station are extended to embrace the whole twenty-four hours. Under this entirely new departure, therefore, Canada has, for the first time, the assurance that every vessel from outside her boundaries, which enters by the St. Lawrence, will be inspected by a medical officer, responsible to the Government and to the country, before it is permitted to pass the quarantine station and go up to the centres of population in the ports of Quebec or Montreal.

ON Adulteration of food, the Chicago News, after referring to the evils of an unenforced law, says: What is needed is not a wholesale prohibition of all "adulteration," as this term is generally understood. The public will be sufficiently protected if the law requires that every article of food or drink shall be sold for what it really is. Such a law would commend itself and this would secure its enforcement. The so-called "adulteration" of food articles by no means implies in all cases; their deterioration, and "since many people prefer chicory in coffee, burned crackers in pepper, and similar sophistications, and others cannot afford to buy strictly pure goods but are content with oleomargarine, etc., no law could be enforced to prevent such "adulterations." All that the public needs is that it be told honestly and plainly just what it is getting when it buys food and drink." We agree with his view in the main; but would urge systems of inspection, as a further pro-

tection against bad or improperly made oleomargarine for example and inferior articles of what might pass as a "pure food."

THE "bed cure" is recommended by the Medical Press, as much better than the hot-water cure, grape cure, &c. We have often urged the value of simple rest. While many required exercise, there is on the part of many others altogether too much activity, and more rest is needed—rest in the prostrate form, on a bed or lounge

It is a pitiful fact says the Medical News that no great scientific discovery, which is apparently simple in its application to the uses of medicine, has escaped the opprobrious patronage of quacks. So electricity, massage, rest treatment, and the so-called mind and faith cures have, in many instances, been brought almost into bad repute by the precipitate practice and extravagant claims of the charlatan. This is notably so in the case of cures by the imagination, which a physician of good standing hardly dare report without danger to his reputation and practice. For years the profession has smiled indulgently on the administration of placebos, which is a mind cure in the form of pills (but that is *entre nous*, and for goodness sake don't let it get out !) The human mind is constituted so peculiarly that the physician's whole work is done sometimes when he makes an impression. Students of medicine are familiar with all the famous instances of the effects of imagination on the body. People have literally worked themselves into all manner of diseases by fancying themselves subject to the same, or in danger of infection. Why should they not also work themselves out ?

THE Lancet makes a distinction, the N. Y. Medical Times says, between what it calls the use and the abuse of tobacco. The man who can say "I always know when I have smoked enough, if I go beyond the just limit I lose my power of prompt decision," is one, it suggests, who had better not smoke at all ; but a moderate use of tobacco soothes the senses, and leaves the mental faculties free from irritation, and ready for calmly clear intellectual processes. When this is not the effect produced by smoking the weed had better be eschewed.

CHARLES SELF, aged 30, a near relative of Gen. Sherman, died suddenly at Hartsville, near Columbus, Ind., recently. The cause of death was said to have been the incessant smoking of cigarettes.

A CURIOUS CLASS—for suppressing a cough. It has often been noted in this MAGAZINE that a cough may often be suppressed by an effort of the will. The New York News states that, Clark Bell, a lawyer and President of the Medico-Legal Society of this city, has had some experience in suppressing the tendency to cough, which it is interesting to hear him relate. He had a constant irritation in the throat and a cough. Somebody told him of a teacher in the art of "how not to cough when you want to," and to that teacher Mr. Bell hied without delay. Pupils, with all brands of cough attached to them were

there to learn how to lay their bronchial burdens down. Most of them were men in the serious and learned professions and pursuits of life, and they acted like awkward and shame-faced school-boys, knowing that they were there to learn so foolish, if not downright impossible a thing as getting the whip-hand of a cough without medicine. The teacher stood them in a row, made them brace back their shoulders, hold up their chins and draw in their abdomens. This last was not easy of accomplishment to some of them, who had previously permitted their abdomens great license in the way of development and obstrusiveness. He then told them to sing "Sweet Home." They squeaked away, and then their throats began to cut up. The teacher forbade any throat scouring or coughing, but told them to draw in a long breath and hold it whenever they were tempted to cough. After many failures they succeeded. They met in class three times a week and spent an hour in singing. Their throat troubles soon retired under overpowering if not harmonious influences of their vocalization. They even flattered themselves that they became pretty good singers. They were forbidden to cough or scour their throats when out of class. Mr. Bell said there were hours when he would have given a year's income for the privilege of tearing away at his throat in the old-time fashion, but he wouldn't yield to the temptation, and at last all throat torment left him. Another benefit which the exercises brought to some who needed it, it is said was a reduction in girth, for which they were correspondingly grateful.

PHYSIOLOGY OF PLEASURE.—The question has often been asked says the Medical Press, as to what constitutes the greatest pleasure, and who is the happiest man, but it is obviously one that does not admit of solution. The intensity of the pleasurable sensation is a matter of temperament and surroundings, but, *cæteris paribus*, the happiest man is he who possesses the greatest sensibility, the most powerful imagination, the strongest will and the least number of prejudices. The men are rare who can by an effort of the will, arrest the oscillations of sorrow and allow only the cords of pleasure to vibrate. Pleasure is the mode of sensation, never the sensation itself, and it is not a paradox, but an incontestible physiological truth, to say that no pleasure exists which is essentially or necessarily a pleasure. The ideal of perfection in humanity would be to efface pain from the list of sensations, and to give all men the maximum number of pleasures. All the rest, as the philosopher said, is but dream and vapor.

THE Paris correspondent of the British Medical Journal reports a case of tuberculous disease in a dog, which was communicated from the human subject. Names and details are given. The dog had been brought up in contact with two tuberculous patients brother and sister. It died in the last stage of consumption. M. Plouchart, veterinary surgeon, of Tours, made a *post-mortem* examination. The lungs were riddled with tubercles; the left lung contained many patches of softening. The peritoneum was covered with tubercles, and the kidneys were also affected.

THE MEDICAL AND SURGICAL SANITARUM, at Battle Creek, Michigan, is a delightful summer resort, which our readers, especially those westward, should bear in mind. They have there large, fine grounds; beautiful natural groves; extensive flower gardens; pleasant shady drives; smooth roads; miles of dry walks; and a cool salubrious summer climate. The mean temperature for the two hottest months last summer, as reported, was 68 degrees Fah., and the highest temperature 20° lower than the adjoining states.

COLLECTING. No one has now any authority to collect for this Journal except our usual collector in Toronto. Our Ottawa subscribers please bear this in mind. We gave one here some accounts to collect, but, besides retaining 150 per cent. more than the usual charge and in accordance with agreement, he appears to have been rather discourteous and has now no authority to collect for us.

ALL in arrears will greatly favor by kindly remitting at an early day.

SPECIAL TO EDITORS OF PAPERS.—The two first articles in this number would prove of much value and might save life if free publicity were given them in local or other papers. While we do not want any free advertising, we should be glad if editors who can command considerable space would give their readers the benefit of these articles, in some form, however deemed best, credited or not credited to this Magazine. Use them, friends, as you please. If any paper publishing any part or all of either, we should appreciate the favour of a copy.

TORONTO INDUSTRIAL EXHIBITION prize list has just been issued. We have received a copy for the tenth Exhibition, to be held at Toronto from the 10th to the 22nd of September next. It is very neatly gotten up, with lithographed covers and appropriate illustrations. Any of our readers who may desire a copy can readily obtain one by dropping a post card to Mr. H. J. Hill, the Secretary, at Toronto. The prospects for the success of this year's show are very promising, and the Directors have set apart a more than usually large amount for special attractions.

THE Johnston Fluid Beef Company, of Montreal, are now manufacturing an excellent "Beef Peptonoid", which has a more agreeable flavor than any we had before tasted. It is one of the most nutritious of prepared foods; excellent for recuperating the overworked or the debilitated from any cause and for adding to soups.

THE Emulsion of Cod Liver Oil with pepsin and quinine manufactured by Casswell, Massey & Co., of New York, and for sale in Montreal by Messrs. W. A. Dyer & Co., has received the endorsement of the leading members of the medical profession of this continent.

NOTES ON CURRENT LITERATURE.

THE CENTURY for June commences with "Plains and Prisons of Western Siberia," illustrated, and a frontispiece, "Exile Party on a Muddy Road near Tiumen." We find, too, "Matthew Arnold's Criticism," as interesting as it is timely; "A Printer's Paradise," a long paper handsomely illustrated; "The Ranchman's Rifle on Craig and Prairie"; "The Liar," part II; "The Philosophy of Courage"; and "what we should eat"; with portraits of Sir Lyon Playfair, Baron Von Liebig and others. In "Topics of the Times" are, "Reform in our Legislative Methods" "The American Flag for America"; and in "Open Letters", "Mr. Arnold and American Art."

THE July Century is to contain another article in the series which the Rev. Dr. Buckley, the editor of The Christian Advocate, has been for some time past contributing occasionally to that periodical. It is entitled "Dreams, Nightmares, and Somnambulism." It will contain a chapter on "Mysterious Dreams Analyzed." It will also contain an article on "Diseased Germs and how to Combat Them," with a frontispiece portrait of Pasteur.

IN THE OVERLAND MONTHLY for May we find, "Some Western Caricature", with very funny caricatures; "Antecedents of Swiss Federalism"; "Caught in a Sierra Snowstorm"; "The Surplus"; and other good papers, with some interesting lighter literature and poetry.

THE ILLUSTRATED LONDON NEWS (American Edition) has been giving some thrilling scenes of the "Inundation in Germany"; and other scenes, more pleasing, of the "Palace of Charlottenburg"; and of "Lower California"; reprints of some fine pictures exhibited at the "Paris Salon" and many "Sketches of pictures of the Royal Academy", with portraits of "Some living French Painters"; "View of the Building and Grounds of the Glasgow International Exhibition"; and a large number of other illustrations of much interest. A very nice picture is "In the Cap Market, Boulogne", and a very funny one, or series, is "Bought and Sold." There is the usual amount of profitable and interesting reading matter.

HARPERS BAZAR, besides the numerous reliable fashion plates has presented some fine illustrations. Among the many, the following may be named: "The Tocsin", a double page one, from a colossal painting, the sensation of the day, at the Paris Salon. "The End of Summer" and "Mary Magdalene at the Sepulchre", from the same source we find; "A book sale in London"; and "The Queens Drawing Room—a Moment before Presentation", both double page illustrations. Every number of the Bazar contains a good deal of very profitable reading matter bearing upon domestic economy, health, cookery, etc., and by reliable writers.

HARPERS WEEKLY has been giving some good illustrations bearing on the political situation with the usual number of leading articles on the same subject. "The Cavalry School of West Point" is a double page picture of striking interest, and another is "The House Committee of Ways and Means", with a larger sized separate portrait of the Chairman, Mr. Mills of Texas.