

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured covers/  
Couverture de couleur
- Covers damaged/  
Couverture endommagée
- Covers restored and/or laminated/  
Couverture restaurée et/ou pelliculée
- Cover title missing/  
Le titre de couverture manque
- Coloured maps/  
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/  
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/  
Planches et/ou illustrations en couleur
- Bound with other material/  
Relié avec d'autres documents
- Tight binding may cause shadows or distortion along interior margin/  
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure
- Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/  
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.
- Additional comments:/  
Commentaires supplémentaires:

- Coloured pages/  
Pages de couleur
- Pages damaged/  
Pages endommagées
- Pages restored and/or laminated/  
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/  
Pages décolorées, tachetées ou piquées
- Pages detached/  
Pages détachées
- Showthrough/  
Transparence
- Quality of print varies/  
Qualité inégale de l'impression
- Continuous pagination/  
Pagination continue
- Includes index(es)/  
Comprend un (des) index
- Title on header taken from:/  
Le titre de l'en-tête provient:
- Title page of issue/  
Page de titre de la livraison
- Caption of issue/  
Titre de départ de la livraison
- Masthead/  
Générique (périodiques) de la livraison

This item is filmed at the reduction ratio checked below/  
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
						✓					

— — — — —  
CANADA  
HEALTH JOURNAL,

A MONTHLY MAGAZINE OF  
PREVENTIVE MEDICINE

— — — EDITED BY — — —

EDWARD PLAYTER, M.D.

Public Health and National Strength and Wealth.

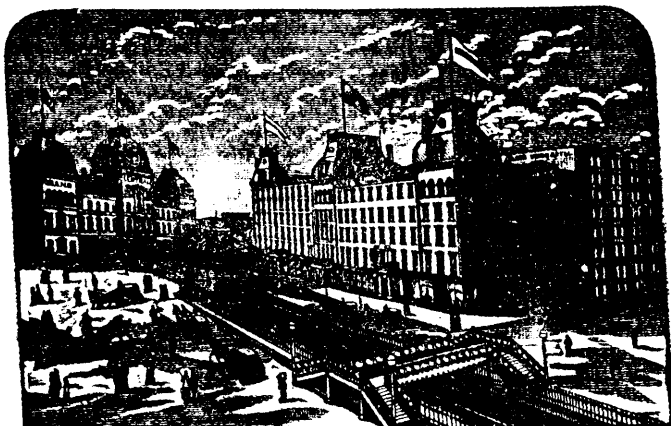
CONTENTS :

Prospective and Retrospective.....		The Medical Health Officer.....	22
Disease and Cure—Avoid Quackery 1		Mothers and Infants .....	23
The Individual in Relation to the		Infections and Disinfectants .....	25
Public Health.....	2	Miscellaneous Items—A Wholesome	
Putrefaction and Infections Diseases. 4		Philippic—Prophylaxis against In-	
Micro-organisms in Rooms—Remark-		fectious Disease—Very Import-	
able results of Experimental		ant Facts on Scarlet Fever ...	26-27
Research .....	6	Health Reports .....	28
The Benign Effects of Public Baths.. 9		The Public Health in Canada in 1887	28
The Sanitary Inspector and the		“ “ “ “ for December....	29
People.....	11	Table of Deaths in Canadian Cities..	31
Communicable Diseases—Individual		The Editor's Special Corner—Greet-	
Helplessness—What to do with		ings — Public Apathy — Health	
Dirty Neighbors .....	14	Missionaries—Change in Medical	
An Obstacle and how it may be Over-		Practice—The Future Physician	
come .....	17	—Notes on the late Meeting of	
How I Attended one Sensible Family 18		the American Health Association	
What the Science of Health is and		and New York Academy Meet-	
what it is not.....	19	ing—A Grave Question &c., &c. 32-35	
Some points in the Ventilation of		Observations and Annotations .....	36-38
Rooms .....	20	Notes on Current Literature.....	39-40

Subscription Price, \$2.00 per year ; Single Copy, 20 Cents.

ADDRESS ALL COMMUNICATIONS,

“HEALTH JOURNAL, Ottawa.”



## THE GRAND UNION HOTEL,

Opposite the Grand Central Depot, New York City.

Offers travellers and families arriving or leaving the city to visit Saratoga, Long Branch, White Mountains, or other Summer Resorts, superior accommodations. All improvements, European plan, over 600 elegantly furnished rooms, fitted up at an expense of a Million Dollars. \$1.00 and upwards per day.

Richly furnished suites for families, and elegantly furnished rooms for dinner parties for ten and upwards. Cuisine and wines of superior merit. The Restaurant, Cafe and Wine Rooms supplied with the best at moderate prices. Toilet and Baggage Rooms, for ladies and gents, where coats, valises and parcels can be left free.

W. D. GARRISON, Manager.

Guests' Baggage taken to and from the depot free, and \$3.00 cab hire saved by stopping at this Hotel. Be sure and try the Grand Union Hotel.

# TRUSSES

The World's Recognition of Merit.

London—1881—Announcement.

At the late INTERNATIONAL MEDICAL AND SANITARY EXHIBITION, the World's most competent Judges recognized their unequalled excellence by granting the

ONLY "AWARD OF MERIT" FOR TRUSSES

"TO I. B. SHEELY, PHILADELPHIA, U. S. A." (Over Sixty-Eight Competitors.)—confirming their high favor with America's most distinguished Surgeons.

EXHIBITION JUDGES FROM THE ROYAL COLLEGE OF SURGEONS:—  
Thomas Bryant, F. R. C. S., Christopher Heath, F. R. C. S.,  
Thomas Smith, F. R. C. S., John Wood, F. R. S., F. R. C. S.

SEELEY'S HARD-RUBBER TRUSSES.



Fine Steel Springs, neatly covered with highly-polished Hard Rubber. Made in every desirable pattern, with Pads anatomically constructed. Light, cool, cleanly, durable; unequalled in quality, finish, and practical construction. Unaffected by time, use or climate; used in bathing. Always Reliable. Prices reduced to meet the popular demand. Sold by all leading Druggists and Dealers at the usual price of common Trusses.

In Difficult or COMPLICATED CASES address  
SEELEY'S TRUSS AND BANDAGE

Philadelphia, U. S. A. } ESTABLISHMENTS } 74 Fleet Street,  
London, Eng.

Under the Patronage of the World's most Eminent Surgeons.

The Correct and Skillful Mechanical Treatment of  
HERNIA or RUPTURE a SPECIALTY.

See Gross's Revised Edition and Agnew's Late Surgery.

REFERENCE:—Prof. S. D. Gross, D. Hayes Agnew, Willard Parker, W. H. Pancoast, Dr. Thos. G. Morton, and others.

**Trade-Mark—Caution Notice!**—From frequent complaints of inferior imitations having been supplied on calls for "HARD-RUBBER TRUSSES," we beg to advise the public and Trade, that the distinguishing words, "HARD-RUBBER TRUSSES," was, on January 24, 1883, granted as Trade-Mark, to our exclusive use, under Act of Congress, March 24, 1881. © 11 "HARD-RUBBER TRUSSES" sold, not stamped, "I. B. SHEELY, WARRINGTON," are infringements, against which we shall protect our Customers and Trade.

HENRY WATTERS,

Chemist & Druggist,

214-216 Sparks St., OTTAWA.

Special attention given to the Compounding of Physicians' Prescriptions.

## ESTERBROOK STEEL PENS



Leading Nos.: 14, 048, 130, 135, 333, 161.

For Sale by all Stationers.

THE ESTERBROOK STEEL PEN CO.,  
Works Camden, N. J. 26 John St., New York

ROBINSON & KENT, BARRISTERS  
ETC. Office: Victoria Chambers,

9 Victoria Street, Toronto

N. G. ROBERTSON, H. A. E. KENT.

**DEEP** Sea Wonders exist in thousands of forms, but are surpassed by the marvels of invention. Those who are in need of profitable work that can be done while living at home should at once send their address to Hallett & Co., Portland, Maine, and receive free, full information how either sex, of all ages, can earn from \$5 to \$25 per day and upwards wherever they live. You are started free. Capital not required. Some have made over \$50 in a single day at this work. All succeed.

# The Canada Health Journal

VOL. X.

JANUARY.

No. 1.

## DISEASE AND ITS CURE—AVOID QUACKERY.

THE principles of prevention are simple enough for anyone of ordinary intelligence to carry into practice when once demonstrated and made known by scientific students of medicine, but when preventive measures have been neglected or not made use of from any cause, and disease has taken root and the body is under its influence, the bodily functions then become more complicated than ever, they are altered in character, and the most extended knowledge and much experience is required in order to not only set them right again, but to combat and remove the disease; and only a competent physician should be entrusted to deal with so complicated a structure as the human organism in a morbid state of action. The writer has witnessed terrible effects from incompetent persons—quacks, in short—meddling with this wonderful structure at such a time; effects which on a future occasion he may give in some detail as a warning to those who would permit or countenance such meddling. When one is threatened with a disease, has had a chill perhaps or feels unusually weary, one may take a hot foot, or even a general warm bath, rest, and be abstinent as regards food, but it would be the wiser course never to do more, never to take even a dose of “physic,” as pills, “salts” and the like, when one is thus threatened, except under the advise of a competent physician; as much harm is thereby sometimes done to certain organs of the body—harm which may be manifested only in after years. The following extract from advance sheets of the “Universal Health Code,” a little sixteen-page pamphlet (also to be published on cardboard), which it is to be hoped will be universally read, is well worth keeping in mind and acting upon:

“When you are not well, keep quiet—rest—and take but little food, and that of the simplest sort—gruel, toast. Rest is a great restorer, and the stomach and other nutrient organs should rest as well as other parts.

“‘*Doctoring*’ one’s self is never safe. If not much better after a day or so of rest and abstinence, a trusty, regular physician should be consulted. If getting worse, do not wait long. If one’s watch gets out of order, a skilled workman is employed, so when ill, above all, employ no amateur, no quack.

“Follow the doctor’s directions to the minutest detail, even to the manner of taking the medicine, and especially in dieting. What may seem to you a most trifling omission or commission may be of much consequence. Recovery may depend much on little things, and less on drugs than on a judicious diet, rest, &c. Avoid quack medicines at all times. They may not suit your case, and do much harm.

“And do not forget that you are under as great obligations to the doctor for the deep interest he, if a good one, is certain to take in your case, as he is to you. Endeavor to consult one whom you can fully trust; and have full faith in the one you do consult—faith that he knows more about your case than you do. Keep hopeful. Hope and a determination to get well help much. Get the mind at ease and in peace; and, above all, trust most in God.

“After or during a severe chill bathe the feet a few minutes in water as hot as can be borne, keeping the body well wrapped; drink a cup or two of hot, thin gruel and get into bed with plenty of bed-clothes until free perspiration starts. This may prevent serious illness.”

## THE INDIVIDUAL IN RELATION TO THE PUBLIC HEALTH.

**C**AUSES of disease prevail on every hand, within the body, without, around, everywhere, and every individual member of society is under obligations to use every possible means which he can command in order to avoid these causes, as well for his neighbors sake as for his own. Every head of a household must

not only endeavour to preserve his own individual organization from the effects of these causes, but must assist in preserving the health of the members of his household and of the public generally; as it is only by united efforts that a pure water supply, good drainage and sewerage and other sanitary necessities of the present advanced age become practical or available to the individual. Furthermore, there are some people naturally so indifferent to the essentials of health, that efforts must be made by others to compel them to give attention to ordinary sanitary requirements, for the sake of the others with whom they come in contact. One may build for himself a home with all its hygienic surroundings and "pervadings" of the most perfect description, provide for himself pure water and food (if in any possible way he can do so without some sort of public aid or co-operation), yet, if in his neighborhood there are no public health measures well carried out and he should step outside of his home and come in contact with others, he may at any time expose himself to the infection of malignant disease, which may develop in his own body, or which he may carry home to his family. In the first street car or hack he may enter he may chance to sit next another who carries infection in his clothing, or to sit on a cushioned seat where infection is lurking; while at church or at the opera he may be exposed in like manner. Should he evade these and persist in a selfish course, his very means of subsistence may be cut off by an epidemic—in the suppression of trade and the depreciation of stocks. Hence for safety, his only alternative is to *assist* in the promotion of the public health. If he cannot assist with his hands he must with his means. He must assist so liberally as to have every home in the community in which he lives placed in as good a sanitary condition as his own. However humble and unluxurious these homes, hygienically they must be perfect. There must be competent medical officers, versed in all the knowledge pertaining to the vast field of preventive medicine, to guide in the organization and carrying out of preventive measures; and there must be rules and regulations and competent inspection in regard to drainage and plumbing and architecture, water and food and milk, and to all sorts of refuse, that no waste matter be permitted to be in the wrong place,

and to the prompt and complete sequestration and management of all first cases of infectious disease. An outside, interstate or foreign health service too must be provided for. It is therefore easy for any intelligent individual to understand that, if he duly regard even but his own individual health, he must be liberal in assisting to provide the most perfect means for preventing the many prevailing causes of disease from becoming active. Imperfect means give a false security and are sometimes almost worse than none. There should then be liberal sums of money voted for the promotion of the public health.

---

#### PUTREFACTION AND INFECTIOUS DISEASES.

AT the recent meeting of the German Scientific and Medical Association at Weisbaden (British Medical Journal, Dec. 17, 1887) Dr. Hueppe delivered an address upon the Relation of Putrefaction to Infectious Diseases, which is of great interest. It is a praiseworthy effort, made in a philosophical spirit, to reconcile new facts with old ways of thinking—to reconcile the existing discrepancies between bacteriology and practical medicine—and to show that there is not so much antagonism between them as some very conservative minds appear to believe.

“In ancient times, infectious diseases were supposed by Hippocrates, and after him by Diodorus, to be connected with putrefactive processes. The latter explained the celebrated plague in Athens by the fact that heavy rains had occurred previously, followed by great heat, and that, in consequence, the ground gave off evil vapors which poisoned the air. In the Middle Ages, Fracastori ascribed to putrefaction quite a host of diseases, namely, the plague, ‘pestilent fevers’ (petechial typhus), and sporadic fevers, with cerebral symptoms and diarrhœa (typhoid), and also asserted that putrefaction could cause both contagious and non-contagious fevers. . . . Roederer and Wagler recognized the intestinal alterations due to typhoid fever, and regarded them as signs of putrefaction. Pringle made extensive investigations into the means of causing and combating putrefaction, and both he and Frank connected ‘putrid fevers’ with external putrefaction.

Pringle and Helcher both knew that these fevers were more apt to occur when the ground water fell to a lower level.

Coming to more modern times, Henle said :—“ Since putrefaction does not invariably cause disease, it must depend upon special conditions what kinds of infusoria and plants develop, that they do not act equally detrimental to health. The body is not represented as resisting putrefaction by a special ‘vital power,’ but by the fact that the living tissues in health oppose the entry of putrefactive organisms. If this opposition be overcome, a special form and direction is given to the putrefactive process, which remains essentially the same as external putrefaction. That this is so is substantiated by the recent teachings on the chemistry of bacteria of Nencki, Gautier, Selmi, and, above all, Brieger. Similar views were subsequently maintained by Pettenkofer.”

Recently the octegenous cultivation of various kinds of pathogenic bacteria by Koch has proved that they possess a saprophytic stage (associated with decomposing organic matter) like ordinary putrefaction bacteria, and that a parasitic stage within the human body is not necessary to their existence as a species, but merely accidental. Henle, and later Pettenkofer, had long known this to be true as regards the parasites of plants.

Sirotonin, Peiper, and Beumer have shown that typhoid bacteria which in man act as “invasive” parasites, act in animals like the ordinary bacteria of putrefaction. Naegeli says that the contagious organisms are derived from the miasmatic, and these again from the putrefactive, these latter organisms having an unlimited variability of form and action. Putrefaction he maintains is not dangerous as long as it is accompanied by a bad odour, for this indicates moisture, and the organisms are only transported when dry and easily diffused.

The British Medical Journal says :—“ Various experiments have amply proved that the more contagious the organisms are the more distinct are they from putrefaction ; indeed, there is antagonism between true contagion and putrefactive bacteria, the former succumbing in the struggle, though Koch’s comma bacilli can survive about a fortnight, and those of Finkler and Prior for a still longer period. . . . It must be granted for the whole



class of cases, from the simplest diarrhoea to cholera nostras, that no line of demarcation can be drawn between putrid 'intoxication' and specific infection." Dr. Hueppe's contention is that all specific bacteria owe their origin to putrefaction bacteria, on the Darwinian principle of modification by descent, and that a hygiene of absolute cleanliness is the best prophylactic against infections.

#### MICRO-ORGANISMS IN THE AIR OF ROOMS—REMARKABLE RESULTS OF EXPERIMENTAL RESEARCH.

SOME remarkable and highly interesting facts, based upon careful experimental researches on the air of rooms, schools and sewers, were brought out at the meeting in September last of the Sanitary Institute of Great Britain and in the proceedings of the Royal Society in June. The experiments were conducted by Professor Carnelly, Mr. J. S. Haldane, and Dr. Anderson, medical health officer, all of Dundee, Scotland, and were presented at the Sanitary Institute in a paper by Mr. Haldane. Below we give a synopsis of a portion of this valuable paper.

The fact that an enormously increased mortality prevails among persons who spend much of their time crowded together in unventilated rooms, as Mr. Haldane says, is universally admitted. Dr. Anderson obtained by special arrangements with the registrars of Dundee, materials from which he constructed the first table below, which shows that not only is the mean age at death on the whole about twice as long in the more roomy as in the less roomy houses, but that at all periods of life up to old age those who live in the better houses have the advantage. The fact as stated that the increase in death-rate runs parallel with the increase in air pollution does not prove that the former is the cause of the latter. But we may argue from other evidence that the pollution of the air is one very potent cause, and probably the chief cause, of the increased mortality.

	DEATH-RATE PER 1,000 LIVING.				
	Whole Population.	Houses.			
		4-roomed and upwards.	3-roomed	2-roomed	1-roomed
General death-rate.....	20.7	12.3	17.2	18.8	21.4
Death-rate of children under 5 yrs of age	9.0	3.3	5.8	9.8	12.3
"    "    all above 5    "	11.7	9.0	11.4	9.0	9.1
"    "    "    20    "	9.4	8.2	8.9	7.3	8.5
"    "    "    70    "	1.9	2.4	2.1	1.4	1.3
"    "    "    80    "	0.5	0.65	0.77	0.39	0.20

The investigators examined the air in sleeping rooms of eighteen of the better class of houses in Dundee, in thirteen two-roomed, and in twenty-nine one-roomed dwellings. The analyses of the air were made during the night, between the hours of one and five in the morning, as they considered that at that time the air would contain about an average amount of the impurities existing in the air during the presence of the inhabitants. The results were as follows :—

	One-roomed Houses.			Two-roomed Houses.			Houses of 4 rooms and upwards.		
	Lowest	Highest	Average	Lowest	Highest	Average	Lowest	Highest	Average
Persons per house (per room in last class).....	2	10	6.6	4	10	6.8	1	3	1.3
Space per person..	104	528	212	148	395	249	391	420	1833
Temperature (F)...	43	61	55	50	59	53.5	42	63	54.5
Carbonic acid....	6.3	32.1	11.2	7.1	13.2	9.9	4.5	11.7	7.7
Organic matter...	7.8	38.1	15.7	5.0	30.2	10.1	1.1	12.0	4.5
Til micro-organsms	6.0	240.0	60.0	8.0	128.0	46.0	0.5	22.0	9.0
Bacteria.....	6.0	120.0	58.0	6.0	118.0	43.0	0.5	16.0	8.5
Moulds.....	0.	5.0	1.2	0	10.0	2.2	0	1.0	0.4

On each night similar analysis of outside air in the streets were also made for the purposes of comparison. Subtracting the amounts found in the air outside from the above quantities, and taking the corrected averages for the air of the better class of dwellings as unity, the following table was obtained :—

	Houses of four rooms and upwards	Two-roomed houses	One-roomed houses
Cubic space per person .....	1	0.13	0.11
Carbonic acid .....	1	1.5	2.0
Organic matter .....	1	1.6	4.4
Micro-organisms (total).....	1	5.1	6.7
Bacteria .....	1	5.1	6.9
Moulds.....	1	5.5	3.0

The air in at least two rooms in each of the board schools and a number of other schools was also examined. A certain proportion of these rooms were ventilated by ordinary means, such as fires, open windows, and ventilators in the roof. The rest were ventilated mechanically, by blowing air by means of fans over hot pipes and thence into the several rooms by means of shafts. It was found that the average of micro-organisms in the "naturally ventilated" rooms was 150, while in the "mechanically ventilated" rooms it was but 16.58. Or, taking as units the average cubic space, the average excess over outside air of temperature, of carbonic acid, and of organic matter, and the average micro-organisms, in mechanically ventilated schools, the comparative results for naturally ventilated schools are expressed in the following table:—

	Mechanically ventilated	Naturally ventilated
Cubic space per person.....	1	1.0
Temperature in excess of outside air..	1	0.66
Carbonic acid " " ..	1	1.7
Organic matter " " ..	1	7.0
Micro-organisms " " ..	1	9.2
Bacteria " " ..	1	9.4
Moulds " " ..	1	2.0

The explanation of this it was thought might lie in the more efficient sweeping out with the air of the particles of suspended organic matter which would otherwise have formed a pabulum for the growth of micro-organisms. Or perhaps the growth of the latter may be prevented by the greater dryness of rooms mechanically ventilated.

**THE SOURCE OF THE MICRO-ORGANISMS—UNEXPECTED RESULTS.**—In testing more thoroughly the results of mechanical

ventilation, it was found that, whereas the carbonic acid present in the air was increased from 12·6 to 18·6 volumes with the mechanical ventilation not in operation, the average number of micro-organisms remained almost exactly the same. Even when the mechanical ventilation was kept off for a week this had no distinct effect in increasing the number of micro-organisms. The conclusion, therefore, was that while the ventilation at the time is the decisive factor in influencing the amount of the gaseous impurities, it is, other things being equal, the habitual state of the ventilation which influences the micro-organisms. This led to inquiries into a number of points regarding the sources of the micro-organisms. The course of further investigations and how the organisms were shown to have accumulated under the floors must be deferred for our next number.

---

#### THE BENIGN EFFECTS OF PUBLIC BATHS.

FEW things would be more promotive of the public health than a good bath—a thorough bodily wash—at least once a week, by every man, woman and child, beginning early in the process with clean clothing. Clean bodies and clean clothing would soon promote cleanliness in the homes and their surroundings, and prolific causes of disease would thereby be removed. Intelligent, cleanly people are often made very uncomfortable, to say nothing of the danger of contracting disease, by coming, of necessity, in contact with uncleanly people. If the “great unwashed” could be washed out of existence by the provision of abundance of free bathing places, it would be a great comfort—a world of happiness, cheaply purchased. In Germany they are bidding fair to reach that next-to-Godliness state in which, as Dr. Lassar puts it, every German shall have his weekly bath. As examples of what they have been recently doing in that Country the following will be of interest: In Göttingen warm baths have been introduced into certain of the public schools. It had been found that by far the greater part of the pupils never brought their body, with the exception of hands and face, in contact with water throughout the year. In the beginning but a few children

availed themselves of the opportunity afforded them, but they soon begin to like bathing, and after a short time there remained not a single child that would shirk the bath. The baths are given gratuitously during school time on four days of every second week. The results have been most satisfactory. Not only did the children improve rapidly in appearance and health, but they also showed an increased freshness of mind and zeal for learning. In white-lead works in Ehrenfeld, there are eighty persons employed, who are required to bathe every week. Towels, soap, and all necessary facilities are furnished by the proprietor of the works. The workmen appreciate the baths as a luxury, and make constant use of them; and the proprietor reports a highly gratifying improvement in the health of the employes since their introduction. In the first year of their use (1884), the number of cases of sickness diminished 20 per cent., and in the following year the reduction seems to have been much greater. Lead colic, especially, become much less frequent. Other manufacturing establishments and factories and also cities, and, it appears, in France too as well as in Germany, are following these worthy examples.

Why should the people on this great and progressive continent be behind, especially in the matter of personal cleanliness, those of Europe? The only cities in the United States having public baths of any sort, it is stated on what appears to be good authority, are Boston with 17; New York, 15; Philadelphia, 5; Brooklyn, 3; Cleveland and Hartford, each 1; and Buffalo with one or more. In Canada, we believe the only city with public baths is Toronto, and for these the city is chiefly if not wholly indebted to Mr. Erastus Wiman of New York. In eighteen cities where there are no public baths it is said only about 23 per cent. of the residents are supplied with bath tubs. The public baths provided are all it appears for cold bathing only and can be used only in warm weather.

The difficulty of furnishing an individual bath for public use, we learn from Dr. Rohé, of Baltimore (address at last meeting of American Med. Assoc.), was first surmounted by a French army surgeon, Dunal by name. "He devised a shower-bath, which was introduced in one of the barracks at Marseilles. This was

soon imitated at other military posts in France, and at present the new French military barracks are generally supplied with a modification of the Dunal shower-bath. In the German army the same system has been adopted, and now every German soldier in barracks is required to bathe every week, the military authorities furnishing the necessary facilities : bath-room, warm water, soap and towels." The amount of water necessary for a thorough cleansing effect with the German soldiers' bath does not exceed, according to Surgeon-General Roth, two gallons.

One could hardly imagine what a change it would soon make in the social condition of the great masses of the people in our great cities and even in the rural districts if every body were the recipient of a good bath at least once a week.

#### THE SANITARY INSPECTOR AND THE PEOPLE.

OF the public there are yet many who do not take kindly to thorough public sanitation—to the law that would compel absolute cleanliness of all premises and household surroundings. Consequently these people do not entertain a very kindly regard for the Sanitary Inspector. It is these people who make the office of the Inspector anything but a pleasant one, indeed often a very hard one. The truth is that, almost everywhere the difficulties of the Inspector are intensified ten fold by the unaccountable lack of sympathy with their work on the part of the public. Inspectors, like other men, are not always just what they should be, but for the most part they doubtless endeavour to do their duty to the best of their ability, and all right thinking people would rather encourage and assist than obstruct them. Those who would obstruct the Inspector are becoming less and less numerous, and they should be strongly condemned by all who are interested in public health proceedings. The more intelligent people of a community we are sure must feel condemnation for obstructionists of this kind, and if they would make a little effort to manifest this feeling it would encourage this most essential officer and his efforts would be more successful. As the able editor of the Glasgow Sanitary Journal writes : "The duties of a

Sanitary Inspector are not of the most agreeable nature, more especially if these duties be performed in a thoroughly efficient manner. He requires to be possessed, in an equally balanced degree, with the *suaviter in modo* and the *fortiter in res*. As a general rule he has but few sympathisers, and his duties bring him into conflict with the public in general and frequently with his employers in particular. After the battle is over his services may be appreciated, but he is apt to fall in the fight." We trust all readers of this Magazine will give all possible encouragement and assistance to the Sanitary Inspector.

THE INSPECTOR.—In a recent address at a meeting of the Midland Counties Association of Public Sanitary Inspectors, the Inspector of Coventry, Eng., Mr. Frederic Booker, gave some very intelligent advice in regard to the important function of this health officer. We give the following synopsis of extracts from his address: The men whose services are needed as inspectors are those who have shown some interest in and aptitude for sanitary work and who have made themselves competent for this service by a careful study of the laws relating to health, and are conversant with their practical and effective application in dealing with nuisances, and all matters appertaining to the public health.

They should be trustworthy men, conducting themselves at all times towards those whom they will have to meet in a kind and courteous manner, and with becoming tact and good temper; they must be men upon whom the fullest reliance can be placed, that the duties appertaining to their official position will be discharged with commendable fidelity as occasions arise. . . .

Their chief aim and purport may be summarized, and be indeed almost expressed in the single word 'inspection'; inspection of the most searching kind, reporting on all circumstances and conditions of life likely to effect it. . . . .

Sanitary inspection is therefore required to be instituted, and should be conducted in an intelligent, methodical, and systematic manner; a knowledge being obtained and a record made of all insanitary conditions found to exist in the district, and a report to the local authority made thereon, as to any deficiency either in construction or administration. The advantages of this methodi-

cal and recorded inspection are invaluable, when conducted, as it should be, without unnecessary obtrusiveness, yet taking care that there be no place in the district unattended that by its insanitary condition invites the presence or spread of disease.

This watchfulness which prevents evils is more valuable than the old plan of waiting for nuisances to occur, and then, and then only, displaying a spasmodic activity in abating them. That there should be a nuisance to abate where it could have been prevented is always a mortification to the true sanitary inspector.

Whilst discharging his duties an inspector may meet with frequent discouragements and vexatious delays, and at times he may have to listen to hard speeches addressed to him ; nevertheless, “ he is not to make reply, ’ but to learn to endure such angry utterances as well and as patiently as he can, without retorting in kind. Let the answering be, not by word but by act, as Diogenes refuted Zeno. When Zeno said there was no motion, Diogenes answered him by moving.

The presence in any district or community of an intelligent inspecting officer of health who has the confidence and support of the local authority at his back, and who is well known to be vigilant and resolute in the full performance of his duties, is of itself a power for good in the increased sanitation of the district.

The health of the people must of course be considered as paramount. Still, and even at the peril of having his motives misconstrued, the inspector should deal gently and have patience in securing the abatement of nuisances. Of course there are cases where prompt action is absolutely necessary, and where recourse to extreme measures would be justified ; but more is often gained by lending assistance and giving advice than is secured by harassing and threatening. Misdirected zeal may be quite as hurtful as lack of zeal.

One of the most pleasant and creditable results of the work of the sanitary inspector, as shown in many of the annual ‘ health reports, ’ is the fact that thousands of nuisances yearly are being either prevented or abated without recourse to penalties.



COMMUNICABLE DISEASES—HELPLESSNESS OF  
THE INDIVIDUAL—WHAT TO DO WITH  
DIRTY NEIGHBORS.

“**N**OTHING is more conspicuous than the helplessness of the individual under the conditions of civilized life to secure the physical basis of health. What can one man wedged up in a crowd do to get fresh air, pure water, more standing room or to avoid his neighbors' disease? It is a question of personal physics, not of personal morality.” These true words were recently said in an Inaugural Address before the Philosophical Society of Glasgow, Scotland, by the President of the Society, James B. Russell, B. A., M. D., L. L. D., Medical Health Officer of Glasgow. For the promotion of the public health there must be co-operation. Among the more intelligent there must be individual interest and union. There will be, if not always, for a long time to come, dirty, indifferent, wicked people who can be educated up to a sense of decency and duty only by coercion, and who must be so educated, if not for their own sake for the sake of wiser and better people. And united effort with the individual interest of the more intelligent are essential in order to provide measures and means, and, above all perhaps, efficient officials for educating and coercing or coercing and educating those who are indifferent in this regard not only to themselves but to their neighbors.

**SOURCE AND SPREAD OF INFECTION.**—In reference to this Dr. Russell draws attention to six points of which the following are abstracts: 1. The property of lateral extension: Given one person in a community attacked by communicable disease, and the one tends to become two, the two to become four; or it may be the one tends to become three, the three to become nine, and so on. In all cases you have a tendency to geometrical progression, but the ratio will vary according to the intensity of the tendency in the special disease. This tendency carries the disease from its centre of origin, as the prairie fire licks up the blade of grass and leaps from tree to tree with an ever-widening front. Every sick person is a menace to those who are well. The settler does not awake to his danger when the careless match is thrown down

among the dry grass miles away, but it began then, not when the lurid reflection of the gathering fire lights up the horizon. 2. The habit of endemicity or of lurking during the intervals between epidemics in places where the conditions are peculiarly favorable to the maintenance of the disease. It may be a house in the street, or a street in a district, or a district in a city, or some special area in a country, or some country in a continent. It may even be one special corner in the world; but in all cases it is the permanence and intensity in the lurking place of the conditions which sustain the disease in life, which lead to the settling down of the disease in this particular place. . . . A perpetual menace of re-invasion is thus kept up. . . . 3. The artificial and remediable nature of the local conditions which foster endemicity. Climate, soil and other physical features may give these conditions greater efficiency and energy, but the conditions themselves are all essentially of the nature of uncleanness, and at most the physical peculiarities only emphasize the necessity of cleanliness. Cholera, Yellow Fever, Enteric Fever and Typhus all positively live upon gross and palpable dirt, and whenever they sustain themselves in the endemic condition there will that dirt be found most gross and most palpable, and from thence they may be exterminated by the removal of that dirt. 4. Even those communicable diseases, such as Small-Pox, Measles, Scarlet Fever and Whooping-Cough, which can scarcely be said to live upon uncleanness, but attack man as man, are all aggravated thereby. Their epidemic tendency is increased, their fatality heightened, their capacity for indiscriminate extension intensified. 5. The soil which sustains the communicable disease in the endemic condition and promotes the epidemic expansion is the same which produces general unwholesomeness. . . . . The measures which will exterminate the communicable diseases will promote general health by lessening the prevalence of non-communicable diseases. In short, the adoption of radical measures for preventing epidemics covers the whole field of sanitation. 6. Whoever persists in a manner of life calculated to produce or promote communicable disease injures himself first, but next, and with certainty, his neighbor.

My neighbor. And who is my neighbor? Dr. Russell properly asks. And this is well illustrated in the following: Dr. Alison has related a story of a poor Irish widow, whose husband had died of typhus in one of the lanes of Edinburgh, and who wandered about the town with her three children, seeking help, and finding none returned to her lane and died there, and gave rise to a local epidemic which ended in the death of seventeen other persons. Carlyle says of this: "Very curious. The forlorn Irish widow applies to her fellow-creatures, as if saying, 'Behold, I am sinking, bare of help; ye must help me! I am your sister, bone of your bone, one God made us; ye must help me.' They answer 'No, impossible; thou art no sister of ours.' But she proves her sisterhood; her typhus fever *kills* them: they actually were her brothers, though denying it! Had human creature ever to go lower for a proof?" Dr. Russell continues: The ultimate cause of the existence of communicability in disease is, I believe, to enforce the golden rule upon us in reference to the physical well-being of mankind. . . .

The practical question is—"What am I to do with my dirty neighbor?" We must bring to the solution of it a little common sense and ordinary business principles as well as philosophy. The first thing to be done is to make him a voting unit in some convenient area of local government. . . . The local administration must, of course, have parallel power of prosecuting and punishing the dirty neighbor for overcrowding and other nuisances which affect the well-being of the neighborhood. The principle to be strictly followed both in the case of the personal and local administrative unit must be not to do anything for them, but make them do it for themselves, and bear the expense as they will reap the benefits. In this way, a constant process of education would be carried on, and a sense of personal and local responsibility be maintained. Besides, every means of directly educating the dirty neighbor should be adopted. Let his children be taught in wholesome schools, where personal cleanliness and decency should be enforced during school hours; and let them have lessons in the rudimentary facts of hygiene, and the relation of disease to pauperism, crime and taxation.

As a mere matter of business all this requires official administrative machinery. Every business man knows that if you really wish any function implying co-operation to be properly performed, there must be executive machinery, departmental sub-division, and general supreme supervision and co-ordination.

## AN OBSTACLE AND HOW IT MAY BE OVERCOME.

**P**OVERTY is and will always be in a state of hostility toward satisfactory hygienic progress. Until something can be done to lessen the inequalities between poverty and wealth in the large cities, and even in the smaller centres, and to provide healthy homes for the poor, with such practical instruction and oversight amongst them as shall preserve their homes in a healthy condition, any thing approaching perfect sanitation will be out of the question. A great deal might be accomplished without much difficulty, toward helping the poor to help themselves to obtain a healthy home, and so gradually remove this dangerous, ever menacing, living obstacle to the security of the general public from malignant disease.

If the thoughts of some of the many millionaires of this Country, some of whom have given such enormous sums to charitable and philanthropic purposes, were turned in this direction they might see a worthy object. If a fund were started with which to purchase land and build cottages to be sold on very easy terms, thousands of poor labourers now paying a high rent for a poisonous abode would take advantage of such a privilege and become the possessor of a home. Or a fund for building model tenement dwellings to rent at a low rate would be the next best thing. Associations in England have provided model tenement houses for the poor, which at a very low rent have returned fair interest on investments.

One square mile of land would give ten thousand families one-twentieth of an acre each and allow for streets. With an average of five in a family this would accommodate fifty thousand souls. Five square miles would provide a twentieth of an acre plot for each family of a quarter of a million of a population. And such allotment, besides giving room for a cottage (or a double cottage on two allotments) would by cultivation take in all refuse matters—kitchen slops, excreta, etc. ; and so the sewage difficulty would be overcome. With the present and improving facilities for conveying large numbers of people, the carrying of fifty thousand men a few miles out of the city would not be an insurmountable difficulty.

There is much truth in these words of Dr. Carpenter : There is an intimate relation between the sanitary state of our bread-winners and their families and our political system.

HOW I ATTENDED ONE SENSIBLE FAMILY.

MORE than a quarter of a century ago, having just graduated with honors and medal at a university of high standing, I commenced practice in a small northern country town, in which there were also three or four other physicians. A prudent, intelligent man, a tanner by occupation, after I had been called upon to attend in a few simple cases of illness in his family, which consisted of a wife and three children, proposed to pay me twenty-five dollars a year for looking after the health of the family and attending them in all cases of ordinary sickness, should they have any; any cases of surgery and lying-in cases to be extra. He informed me that another physician, a gentleman standing high in the profession, but who had removed from the town, had attended his family in this way for a number of years, for I think twenty dollars a year. The home of this family was but a short distance from my place of residence and I accepted the proposition. I had the little home put in a good sanitary condition, gave special directions in reference to the ventilation of the rooms and the diet, especially, and general management of the children, and the twenty-five dollars proved to be the easiest earned money I received in practice for many after years. The arrangement was carried out for a number of years with the utmost satisfaction to all parties concerned, or until I moved away from the town to a more central locality. The children became in a marked degree more healthy and vigorous and were hardly ever ill.

The widow of a clergyman, with considerable means, and who, I well remember, used to call often, coming in a closed carriage, to see my grandmother, paid four hundred dollars a year to a physician, an M. R. C. S. E., for looking after her health. I have since often wondered that there are not many, many more cases of this sort of practice. In the Southern California Practitioner of May last I find the following: "Miss Wolfe, owner of \$10,000,000, who lately died, paid Dr. William Todd Helmuth \$5,000 a year to doctor her. Mrs. Cornelius Vanderbilt's physician is Dr. W. S. Belden, and although her health is excellent he is consulted often, prevention being preferable to cure, doubtless, and the belief is that the prevention costs not less than \$10,000 annually." Only the very few are wise enough to employ their physician in this way.

M. R.

WHAT THE SCIENCE OF HEALTH IS AND  
WHAT IT IS NOT.

THE desire to write a few words upon these points has been caused chiefly by an article which appeared a few months ago in the "Contemporary," on "Faith Healing and Fear Killing," by one Frances Power Cobb, whether Mrs. or Miss we know not. This writer thinks that if Kingsley, who forty years ago preached so wisely on religious obedience to the laws of health, were alive now he would be "loudest in the denunciation of that *hygieolatry* which threatens to become our only religion." Everyone knows that recent hygienic progress in Great Britain has increased in a marked degree the average length of life there, and this undoubtedly means less sickness and a more healthy and happy condition of the people generally. Yet Frances Power Cobb writes that, on account of this "hygieolatry," "The old, healthful, buoyant spirit seems already fled from the majority of English homes." One reading this would naturally wonder how she or anyone else could so soon obtain such knowledge relative to the "majority" of English homes. Does she know whereof she writes? Evidently she does not. Again, she writes: "Nay, we are told (it is a large demand upon credulity) that English school boys have almost ceased to be reckless. . . . about going on deep water in unseaworthy boats; . . . which excited the perennial alarms of their fond mothers." (Ah! we have it now. Frances Power Cobb is hardly a mother; probably not a wife; evidently not young). Next, she laments that "Urchins in round jackets decline to partake of unripe apples and pastry on the never before heard of grounds of dyspepsia." What untimely nonsense for one who writes well to indulge in.

Let us now first consider what true sanitary science is not. Concerning that part of the science which relates to the health of the public there is not, in this connection, much to be said. In proceedings of this nature there is not much overdoing, not much that is extreme and unnecessary. In cleaning up premises and preventing air contamination, in providing pure public water supplies and such like measures, there is not, nor is there likely to be, overdoing. There has been and perhaps is still, in the

practice of the science, too much coercion in advance of education ; and there are differences of opinion in relation to drains and traps, their manner of construction and ventilation, etc., all of which are being swept away by the light of scientific facts.

In the domain of what is called individual or domestic hygiene, however, there is a good deal of rubbish ; put forth by men, and sometimes women too, with extreme and narrow views and an utter absence of correct knowledge relating to the laws of life, or the physiological functions of the human body. Rational hygiene does not recommend a diet of coarse cereals with only cold water as a drink ; nor a bed as hard as a board ; nor, with the view of “hardening the system,” an out of door plunge in the morning at sunrise into icy cold water. But rational hygiene does recommend, and for everybody, the young and the old, the rich and the poor, absolute cleanliness everywhere and in everything ; pure air, pure water, pure, refined but simple, digestible and nutritious food, and in abundant variety but partaken of in moderation ; it recommends regular and abundant but not violent exercise ; rest and recreation, and regular and ample time for sleep ; with comfortable clothing ; and the greatest possible protection from infectious diseases. In the present state of society, in this age of herding together in cities, the good and the bad, the prudent and the careless, these essentials of life and health are not by any means easily obtained by all people. But all people who care and strive for them have a right to them, and it is the province of journals of this kind, and it shall be especially the province of this one, to strive to secure them to all.

#### SOME POINTS IN THE VENTILATION OF ROOMS.

**B**REATHED air is so poisonous, while most people are indifferent about it, and pure air is so essential to health, that we feel constrained to touch often upon this subject of ventilation. Then there is the fact that tubercular diseases are very prevalent and fatal, especially is this the case with consumption, and our best authorities agree that the foul, breathed air of close, unventilated

rooms is a chief, if not an essential, factor in the causation of these diseases. It is clear that many intelligent people are now pretty fully impressed with the importance of a frequent change of the air in rooms and that ventilation in some form is much more common than it was ten and twenty years ago ; yet among the great mass of the poorer classes of people who dwell in cottages and tenement houses there is still an utter absence of any attempt to purify the air of their rooms. This is largely from a want of knowledge of the lamentable effects upon the human organism of breathed air and of the good effects of the fresh and pure. Often we feel that we should like to go out amongst them, missionary-like, and preach to them of the benign effects of pure air and cleanliness, which alas so many of them know but little of.

The extra expense of warming the outer pure air in cold weather as it comes into rooms is with many people an obstacle to ventilation. But these same people often think little of the extra cost of some of the higher priced foods with which to gratify their palate, when often they would be better with simpler, less expensive food. "Simpler food and purer air" might well be put up as a motto on their wall. It should be put up everywhere in the mind of men and of women too, in indellible letters, that the very last essential of life in which anyone should attempt to economize, should be the outer pure air. Expenses may be cut down in every other necessary much more safely, remember, and with less disadvantage than in this one.

The simplest and one of the most effectual means of changing the air in rooms is to provide some way for the removal of the breathed air. This is easiest done by means of an opening into a warm chimney flue, or even into a stovepipe, with a sliding valve. Reader, if you have in your house an occupied room, especially a bed-room, with a stovepipe passing through it, and with no special means of ventilation, take the advice of a friend who has had a good deal of experience in these things and without delay have a tinsmith cut an opening five or six inches square in the side of a link of pipe, fit on a sliding piece so that the opening can be made larger or smaller at will ; and when completed and fitted on the stovepipe, with a fire in the stove, hold a lighted



match, taper or piece of paper, near it and observe the current of air passing up the pipe through the opening. Withdraw the foul air of a room in any such way and the pure outer air in sufficient abundance will be sure to find its way in through the cracks and crevices about the windows, doors and base of almost any house when the air inside is much warmer than that without ;—that is in sufficient abundance to produce a vast improvement in the air of the room. And if your sense of smell is fairly acute you may readily observe the improvement in passing into the room from the outer air, either before you have made the opening or when it is closed, and also when it is open and in use, and especially can you observe the difference and improvement in the morning if it be an occupied bed-room. While in a little time you most likely will observe a difference in the health and feelings of the occupants of such room.

An open grate or open stove of course provides when in use good means of ventilation ; although we would advise an opening also near the ceiling into the chimney or stovepipe.

We know of many mothers who take opportunities when the occupants are out of a room, as when the children vacate the nursery to take their meals, to completely change the air in the room by opening the windows and doors for a time, the length of which must depend on the temperature outside and on the number and size of the openings.

However you manage it, contrive in some way never to continue to breathe once breathed air.

---

#### THE MEDICAL HEALTH OFFICER.

OF all men in all positions who render a service, no man that we can think of, is so badly paid as the Medical Health Officer in the United States and Canada. In a few of the large cities he receives a salary, as a rule probably not half as large as the city's legal advisor. While in the great majority of cases, in the smaller municipalities in the different states, in some of which states many boards of health have been organized, he receives so small a sum that, probably in nine cases out of ten, it would be

more dignified and satisfactory for him in the end to give his services entirely free. He gives a special service, quite unlike that given by members of health boards and councils; and far more than this, he is expected to advise and strive for sanitary measures which directly cut off the means by which alone, in the present attitude of the profession, he can obtain a livelihood and bread and butter for his family; and indeed probably effecting in like manner the families of two or three or more of his fellow practitioners. How it is that intelligent well-to-do communities who in most cases would scorn to accept individually of any like service free, who would not so accept the services of a lawyer, engineer or surveyor, can so sponge upon the self-sacrificing, often over worked physician, is a mystery—is one of those things, as Dundreary put it, “which no fellow can find out.” Physicians are as ready to serve the public in the legislatures and in the councils of towns and townships in the general management of state and municipal affairs, as are any other class of citizens. But it is quite a different thing, it must be remembered, to give free the special service by which one obtains a living and which service tends directly to cut off future necessity for the special services. It is to be hoped that a nearer approach to common fairness in this regard will soon prevail and that the Medical Health Officer will be liberally remunerated for his valuable advice and assistance in advancing public health measures.

---

#### MOTHERS AND INFANTS.

**D**R. Oliver Wendel Holmes was once asked, when the training of a child should begin, and his reply was, “A hundred years before it is born.” This, observe, is quite as applicable to the physical, as to the mental training. If you would have a child with a good, vigorous, well balanced mind, free from the torments or other consequences of any bodily defects or ailments—free from a tendency to disease of any sort, you must begin as it were with good soil and good seed, attend to what will be the past history. The influence exercised through the expectant mother upon the unborn child is truly wonderful. Effects of various influences of this kind are familiar to almost every body.

We have read of a woman and mother who gave the following experience: She desired an eloquent son and when finding herself likely to bear a second one, gave much of her time to reading classical and other works of a high order and to hearing orators, in the pulpit, the lecture room and the legislature, and her son when he grew up was possessed of special ability for speaking. Expecting a third son, and wishing him to be an artist and painter, she visited with a trained artist all the principal art studios of the chief cities of this continent and gave herself up largely to the admiration and study of the fine arts. Her son eventually developed extraordinary artistic taste and talent.

Most people have observed or know what marked effects, for good or for ill, very little things will sometimes have upon the human body. A little draft of air, a glass of some particular water or a little change in the food, will sometimes give rise to much trouble. On the other hand, the smallest trifle may have a restorative effect. When Mr. Lawson Tait, of Birmingham, Eng., the well known and remarkably successful operator in abdominal surgery, was at the meeting of the Royal Society of Great Britain, held in Montreal, three or four years ago, in an admirable address, which the writer had the pleasure of hearing, he said, if asked to what he attributed his unusual success, in freedom from fatalities after operations, he could not say, unless it was to his most "scrupulous attention to little things,"—to which most operators are indifferent.

Parents, if you would have healthy children, and not sickly and troublesome ones, often requiring medical attendance, first attend well to every little point connected with the expectant mother—with the air she breathes, the food she eats, the clothes she wears, the labor she performs or exercise she takes and the sleep she gets—and take care that she be not worried and grieved in any way. In like manner, be equally concerned about the little points relating to the children during all their growing period; especially about the air they breathe—the air in their bedrooms—and the food they eat. With abundance of fresh air, comfortable clothing and out-of-door romping, they will be physically and, largely, mentally just about what their diet makes them. On another occasion, probably next month, I shall deal in detail with the diet of children.

M. R.

## INFECTIONS AND DISINFECTION.

ONE of the most important points in the suppression of infectious diseases, epidemic or endemic, is in thorough disinfection. Hitherto the practice of disinfection has been in a large measure farcical. There are not only the infections, but there are their spores or seeds, to deal with. In the June number of this Magazine, we gave a paper on disinfection by Dr. Alfred Carpenter, one of the best papers on the subject ever published. Dr. Carpenter said: "You may destroy the bacteria, but they are full of eggs, as a herring may be full of roe; and if you leave these germs untouched you only postpone the mischief to a future day. For, unlike the roe, they may retain their vitality in a dormant state for long periods of time. It daily happens that the very measures you are taking for the destruction of bacterial life are at the same time preserving their ova from destruction. I have seen such ova covered by carbolic acid which had arrested further change, and when the carbolic acid was peeled off, the preserved ova threw off their dormant nature and set to work again in the production of a new outbreak of disease." For the complete destruction of the germs there seems to be nothing equal to moist heat, such as steam. At the late meeting in Memphis of the American Health Association, the Committee on disinfectants, and there is probably no better authority, reported that, the boiling temperature (212 F.) was destructive of all known germs, while a continuation of this temperature for some minutes, would destroy all spores (seeds or eggs, as sometimes called). Hence, boiling for a few minutes in water will purify infected clothing. The aerial disinfection of rooms by sulphur or chlorine, as usually practiced, is of but little value, being often of a very perfunctory character. Moisture is essential, and the wood work of the rooms should be first washed and left wet, and the rooms must be thoroughly filled with the gas, and left very tightly closed for from 12 to 24 hours. Carpenter contends that this is not enough and that the walls of the rooms should afterwards be scraped and lime washed, the scrapings carefully burned, and the floor well washed with a solution of corrosive sublimate in water, one part to 5,000 (about half a dram to a pail of water). This may to

some appear to involve a great deal of trouble, but far better to do it than have a fatal case of infectious disease follow, and many cases might follow imperfect disinfection. Disinfectants for receiving the excreta of the sick should be much stronger than commonly used. However strong, they can do no harm, if reasonable care be exercised ; but it must be remembered that all true disinfectants are poisonous.

---

A WHOLESOME PHILIPIC.—Mr. Councillor Crosfield, not long ago in a letter in the Manchester Examiner and Times (Eng.), referring to the unsanitary property and inadequate air space in certain parts of Manchester, writes : “I should like to know by whom they were designed, and for whose pecuniary benefit. For less crimes than this, men’s carcases have been dug out of their graves to be gibbeted, or kicked about the streets. I should like to know whether the owners were sanctimonious scoundrels who left doles for the poor. I should like to know how the present owners came into possession, and whether they live at the sea side or in the suburbs. I should like to know how long the vengeance of Almighty God will slumber, and whether it will some day be hurled against a whole city for allowing decades of years to pass without an emphatic declaration that a few horrible ghouls cannot be permitted to fatten upon the dead, nor to depasture themselves in fields of disease, of rottenness, and of hideous ruin of everything divine in human nature.”

PROPHYLAXIS AGAINST INFECTIOUS DISEASES,—There is a wide-spread notion among people not familiar with the facts, that doctors enjoy a certain immunity from infectious diseases not possessed by other people, and that the absence of fear is a safeguard against infection. Such a supposition is without foundation, and is an insult to the brave men and women who fall at their post of duty in every epidemic. Courage is no more a protection against disease germs than against bullets. It is true, that in epidemics, as in war, the skulkers and cowards often run into danger which the men in the ranks escape. The rashness which results from ignorance or from thoughtlessness is not

courage, any more than the prudence which avoids danger when there is no good reason for facing it is cowardice. Those who rashly venture within the lines drawn by an epidemic, in the pursuit of business or pleasure, on the supposition that they will escape the prevailing disease because they are "not afraid," often fall victims to their unreasoning temerity, and not infrequently beat a hasty retreat, with blanched face, when they are brought directly into the presence of the sick and the dying. Our advice to the brave is, do not put your trust in your courage, for it is no armour against infection. Rely rather upon those precautions which science and experience indicate as best suited to the special circumstances in which you may be placed, and do not hesitate to retreat before an invisible foe, when you are not required by consideration of duty to remain upon the field of battle.—Dr. George M. Sternberg, in Lomb prize essay.

VERY IMPORTANT FACTS ON SCARLET-FEVER—The opinion generally prevails that scarlet-fever and other exanthematous diseases run a severer course in adults than in children, and some parents are even unwise enough to permit or even encourage the exposure of their young children to the infection of such diseases in order "to have it over" while the children are yet young. Dr. Tatham, Medical Health Officer of Salford, Eng., gives to the British Medical Journal of a recent date the following facts: I have now before me carefully prepared statistics as to the case mortality amongst 2,500 cases of scarlet-fever recently completed in Salford. The percentage fatality amongst these cases has been ascertained at the several ages from one year up to adult life, and the following is the result: Of 259 cases occurring within the first two years of life, 26 per cent. died; of 881 cases aged from 2 years to 5, the case fatality was 14 per cent.; in the next quinquennium, it was 7.5 per cent.; whilst amongst the cases occurring at all ages above 10 years, the fatality did not exceed 3.7 per cent. It follows, therefore, that if, by careful isolation of infective persons, we can postpone the period of life at which a child is to have scarlet-fever from the age of one or two years to some period after the fifth year, we reduce the risk to that child's life by more than two-thirds; whilst, by further postponing it beyond the tenth year, the risk is reduced to one-seventh of that to which the child would have been exposed had he contracted the disease in infancy.

## HEALTH REPORTS.

BOSTON (Mass.).—From a summary of the deaths last year in Boston, issued with the last monthly bulletin, it appears that the mortality there, which had fallen considerably in the previous year, increased in 1887 to 25.18, per 1,000 of population, from 23.17. in 1886. The percentage of deaths from zymotic diseases, which had decreased from 34.89 (p.c.) in 1872 to 17.7 in 1886, and had fallen rapidly since 1883, increased last year to 19.7, although still much below that of 1883. With fewer deaths from diphtheria last year, there was a large increase in the number from typhoid fever and a still larger from scarlet fever, measles and whooping cough. Has there been a laxity in notification? The Board however in their estimates make no allowance for an increase of population; quite unlike many other cities, which usually over estimate this.

TORONTO (Ont.).—The health report for last year up to 1st November for Toronto has been issued. Reporting only to this period makes it awkward for comparisons. Evidently, there was a great deal of good sanitary work done during the year in the city. But as stated in the report, the increase of typhoid from 52, the number the previous year, to 193, and diphtheria from 142 to 625, “presents a state of affairs which ought to be as alarming as the advent of cholera.” Again, “This increase of mortality is not creditable to the city, although the Medical Health Department can not be accused of having failed” to point out the causes. The privy pits and the sewage flowing into the water front are the chief causes, and we are astonished to have learned from most reliable authority that it is the well-to-do, indeed the wealthy people in the city who most strongly oppose appropriations of money for public health purposes.

---

## THE PUBLIC HEALTH IN CANADA IN 1887.

**D**URING the year 1887 there were returned in the monthly reports to the Department of Agriculture in Ottawa from the twenty principal cities in Canada, a total record of 15,636 deaths. During the year 1886 the same twenty cities and towns returned a total record of 16,018 deaths; or 382 more than in 1887.

Assuming the population of the 20 places to have averaged during the year, 650,000, the mortality for the year in the 20 places was a little over 24 per 1,000 of population.

This estimate of the population allows for a larger proportionate increase during the previous six years than the last census showed to have taken place between 1871 and 1881, and also for the extension of the limits of the larger cities.

The mortality in the 28 largest English "towns," with a population of over 9,000,000, averages from year to year less than 21 per 100 of population.

From zymotic, or what are also commonly called filth diseases, the showing is still much worse. Over 3,700 of the deaths last year in the 20 Canadian cities and towns were from this class, showing a mortality from this cause alone of about 5.7 per 1000 of population. This is more than double the average rate in the 28 English towns; where it was but 2.7 per 1,000 the previous year.

In our next number we propose noting and comparing with each other the mortality of the past year in the different cities and towns in Canada.

---

## THE PUBLIC HEALTH FOR DECEMBER.

### MORTUARY RETURNS FROM TWENTY-SIX CANADIAN CITIES AND TOWNS.

THE twenty-six principal cities and towns in Canada which make monthly returns of deaths to the Department of Agriculture in Ottawa, returned a total record for December of 1,441 deaths; 70 more than November. The total rate of mortality for the month was over 25 per 1,000 of population per annum. An increase in the mortality in December in this climate, after the usual decrease during the autumn, is usual.

In Montreal there were only 8 more deaths in December, than in November. In Toronto there were 5 more and in Quebec 6 less. In Hamilton there was an increase of over 30 per cent., but the mortality there was only 13 per 1,000 of population in November, and 17 in December. In Halifax, St. John, London and Winnipeg there was likewise a large proportionate



increase. In the three first named of these the mortality was low in November. In Winnipeg the mortality was high—nearly equalling in December that of Montreal. In Ottawa the mortality was about the same in December as in November—27 per 1,000 of population, per annum. In November in the capital there had been a marked rise from the previous month.

From measles the total number of deaths declined from 28 in November to 16 in December. Of the 16, 7 were in Charlottetown and 4 in Sherbrooke ; thus showing that the mortality from this cause had largely increased in the former city and largely decreased in the latter.

From scarlet fever there was an increase in the record, from 8 in November to 22 in December. Seventeen of the 22 deaths were in Winnipeg.

In the mortality from diphtheria there was but a slight decline in the totals—from 187 in November to 172 in December. The decline was most notable in Montreal, although the fatalities there were 90 ; and counting that city out, there was an increase in the totals in the other 25 places. The proportionate mortality from this disease in Hull was double that of Montreal ; while in Peterborough, Sorel and Woodstock it was greater than in Montreal. In Ottawa, London and Winnipeg the mortality from this cause was high.

From typhoid fever the mortality increased about 30 per cent. in December as compared with November ; but this increase was more than made up in the increase in Ottawa and Hull alone, in which two places there were 29 of the total record of 60 deaths from this disease. So that the prevalence of typhoid seems not to have been at all general.

From all the zymotic diseases the total mortality in the 26 cities and towns was just the same in December as in November.

We find still then in December prevailing epidemic of measles, scarlet fever, diphtheria and typhoid fever.

There was a small increase in the mortality from constitutional diseases, and a large increase from local diseases, with a decline in the rate from developmental diseases, and fewer deaths from violence.



## THE EDITOR'S SPECIAL CORNER.

THIS number will reach thousands of new readers with many of whom we hope to have, for a long time to come, regular monthly communication through these pages. We greet these, as well as all our old readers, most cordially. It shall be our chief aim, more now perhaps under our improved conditions than ever before, to make every page of the Magazine instructive and useful to every reader of them. Not a word need be said of the value of health; but it is really marvellous how apathetic—how indifferent, most people are in regard to the many causes of disease which prevail every where—indifferent to the causes, both in regard to their own individual body, as well as the household, for the health of which heads of families are chiefly responsible—indifferent until sickness and death come with their powerful awakening. So easy often it is to prevent, so difficult, often impossible, to cure. Alas! We often think this cause we are striving in needs missionaries to go forth and in soul stirring language preach to every creature the gospel of health. For it is very largely from ignorance of it—of the real value of health and how simple are the bye ways to it, that disease is everywhere so rife.

WHEN the happy time shall have come when every family shall be constantly under the protective influence, the “watchful care and skilful oversight,” of a competent physician, there will follow a prosperity compared with which the present “prosperity of the country” of which politicians speak, will be but lightly thought of. It is not chimerical or Utopian to consider an even expect, and that soon, this changed relation between the public and the profession: not when we consider the remarks made from time to time by the greatest lights in the profession; by Sir William Jenner, by Sir Henry Acland, by Drs. Samuel Wilkes, Alfred Carpenter, B. W. Richardson, (the late) Austin Flint, W. H. Hingston, at the recent opening of the Montreal School of Medicine, and Andrew H. Smith, still more recently at the New York Academy of Medicine; whose remarks on “the medicine of the near future” will be given herein on another occasion; not when we hear such addresses as those delivered not long ago by Dr. Clarke-Miller, at the Ohio State Medical Society meeting, and by Dr. William Hutchinson, at the meeting of the American Medical Association; not when we read in such papers as the N. Y. Independent such as this: “The time has really come when every family that can afford it, should put itself under the care of the physician, with expectation that he will guide the life in particulars in which every one cannot be expected to have knowledge, and so secure vigor and ward off disease.”

WHILE the public, of which the medical profession form an important integral part, should be first with all true Christians and philanthropists, we always feel the warmest, deepest loyal interest in the members, as a class, of our own beloved profession. And while it is a grand thing to be constantly engaged in the relief of suffering in the bodies of our fellow-creatures, it is

unquestionably grander and nobler to be able to prevent that suffering by removing, in one way or another, the causes of it ; and it is all the more ennobling because it is now, for obvious reasons, less appreciated and valued by the people. Our medical friends should bear in mind that the nearer the practice of our profession approaches to that of prevention, either in the municipality or the family, the easier it will be for us, and the more remunerative it must eventually be, as it would be quite out of the course of nature to be otherwise. We hear the Rev. Dr. Paxton, before the graduating class of the medical department of the University of New York, saying : “ Oh, if people were not so ungrateful ! praising louder the temporary relief the specious quack or cure by faith affords than the honest, helpful oversight and directions of a family physician, 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.” As this is the only periodical working in the interests of this humane and profitable course, we think we may fairly claim appreciation (and this we most crave from our fellow physicians) and substantial encouragement from members of the profession, as well as from all other classes.

“ CASES in practice ” are given by Dr. Smith in his admirable address at the Academy, forcibly illustrating the value of a physician’s constant oversight. “ A gentleman who at most has had only an occasional headache, or a passing nausea, a mere trifle which he would scarcely mention to his family, goes in the morning to his place of business. A few hours later, a carriage stops before his up-town residence ; he is lifted out in a state of insensibility and carried to his room ; a physician, anyone who can be found, is hastily summoned ; vigorous treatment is resorted to at once, but without avail ; consciousness does not return ; and death takes place within a few hours from uræmia. He never suspected that he had Bright’s disease, yet a very simple examination would have revealed the fact to his physician, and proper treatment would have averted the catastrophe, if not wholly, at least for a lengthened period.” But besides in such cases there are thousands of ways, many of which were touched upon in the address, in which the physician, in such a relation, could preserve and promote health and save life, more especially in the young and growing.

DR. SMITH continues : “ If medicine is ever to take its proper rank, the first step must be a remodelling of the relation of the family physician to the families under his charge.” Again, after referring to various causes of disease, he says : “ Against these and many other influences affecting injuriously the physical, and through it often the mental, condition of vast masses of people, who are our natural protectors if not the medical profession ? Who is to speak for better things if they remain silent ? Is it the clergy ? Four-fifths of our people, alas ! never come within their reach, Is it the business-men ? As a class, with many honorable exceptions, they are too busy to attend to anything which does not make a showing on the ledger. Is it the professional philanthropists ? What practical good has ever been affected by their vagaries ?

Is it the politicians? Heaven save the mark!" Descartes said: if it be possible to perfect the human race, it is in medicine that we must seek the means.

MANY hundreds of the ablest members of the profession, in Great Britain, on the Continent of Europe and on this Continent, in connection with associations, such as the Sanitary Institute and the National Health Association, in England, and the American Public Health Association, are vigorously endeavouring, as it were, with scythe and reaping hook, to cut down the barrier of public ignorance and prejudice which is the chief obstacle to a change in the present system of medical practice. The public suffer most—the patients (aptly, from *patior*, to suffer) most, but the physicians too in their turn. Alas! as we stated nearly twenty years ago, in an address before the York County Medical Society, the medical profession is much in the position of an army resting quietly in barrack to be called into service and action only after an enemy has entered the State and taken possession of the defences. Then there is hurrying and distress. Twenty years ago there were but few signs of a change; now there are many.

DR. STERNBERG'S valuable and comprehensive presidential address at the late Memphis meeting of the A. P. H. Association should be extensively read by all classes. Already in previous numbers we have given notes of the proceedings of this important meeting. Asiatic cholera is threatening this continent, and cities and towns should look well to the source of their public water supply. Dr. Sternberg says: "Ample evidence demonstrates that the epidemic extension of this disease depends largely, if not exclusively, upon the water supply." Rome (Italy) with its pure supply, from a source "not likely to be contaminated," seems cholera proof; and Naples, since the use of its new water system, in 1885, enjoys comparative immunity.

DR. EZRA H. HUNT'S two scientific papers naturally elicited a good deal of discussion. His views given in that on "the Origin of Some Diseases" are in accord with those of Dr. Hueppe, set forth about the same time in an address at Weisbaden, Germany, on the Relations of Putrefaction to Infectious Disease, which we touch upon in an article on another page, and which views are becoming somewhat general. With the four final conclusions, or "practical results," of this paper we desire to express our full accord. In regard to his second paper, while it will be well to seek cautiously for effectual bacillicides for the destruction of pathogenic organisms in the body, for there will doubtless yet for a long time to come be infections which will, in spite of precautions, find their way into the body, and a special antidote will be practically most useful, yet we should prefer to direct our first and greatest efforts toward the destruction of the organisms outside of the body and before they reach it—the destruction of their means or source of development and multiplication, and would sustain the practical views of Drs. C. N. Hewitt and H. B. Baker.

THE Quarantine discussion was interesting and should prove profitable. Dr. Rauch was probably not any too severe on the dangers of the New York

establishment—all that is left of it. Dr. Bell (of the Sanitarian) in his lucid description of the methods of procedure there, which it seemed were practical and effectual, contended that the best possible in the circumstances had been done, and that the State executive was responsible for the bad condition of the two islands which, he said, belonged to the State; Dr. Falligant contending that Governor Hill's veto was in harmony with economy and good Government. It would seem that the State is legally bound to keep the Quarantine in repair, however enormous the fees collected may be.

MORE system in the Quarantines of the entire country, as Dr. Rohé contended, is certainly most urgently demanded. How this ever is to be brought about without entire Federal control, as in Canada, is something of a mystery. Some of the States, notably probably Massachusetts, will never consent to this. The question is a most important one, involving as it does all the Maritime Quarantines. Dr. Holt and others advocated national aid without control. If national control seems "theoretically" plausible, as Dr. Holt admitted, surely human ingenuity could make it practicable. For as Dr. Lachapelle of Montreal said, without it laxity in various quarters may be expected. The Canadian system, clearly explained by its chief officer, Dr. Montizambert, is entirely under Federal control and not one of the provinces would desire it otherwise. It has been commended on the continent of Europe for its efficiency. The question at the Memphis meeting was referred to the representatives of State Boards, who, we trust, will consider it in a liberal spirit.

THE gravest question in this country from a sanitary point of view, if not from every other point, is that of water pollution and public water supplies. There is hardly a stream in any of the more populous parts the water of which can fairly be regarded as a safe, potable water. The lakes into which many of the smaller streams flow are hardly any better. As stated in a paper relating to this subject read at the meeting of the American Public Health Association in Toronto in October 1886, by the Editor of this Journal, every square mile of Lake Ontario receives the water—the sewage and the refuse of manufactories—of not less than sixty-five persons on an average; not any more perhaps than most of the other lakes receive. This to some may not seem to be much, but when we consider that the sewage is often of a specific or infectious character, it becomes a very serious matter.

REMORSELESS nature's lesson of the day, as being marked by clammy fingers in figures of great dimensions on the blackboard of death, for those communities who persist in drinking sewage of even the billionth dilution, is not hard to learn, by those who survive. It is simply this: "If ye drink of the waters ye may die." In Cincinnati, O., in Pittsburg, Pa. and in Ottawa, Ont., as well as in many other places, the penalty of not having sooner learned and practiced the lesson has been a severe one, especially in the last named city; one person in thirty it has been estimated having been prostrated with fever, mostly enteric (typhoid), with many deaths.

MAN is a "cooking animal." Why not cook all the water he drinks as well as the beef and potatoes and flour he eats? or at least until he has determined to obtain at any cost a purer water, above suspicion, and free from the possibility of contamination? No fear of any water then, if *well* boiled. He could take it cold or hot, as he takes his beef and turkey. But he must be careful how he cools it, and not put ice in it, but around it.

#### OBSERVATIONS AND ANNOTATIONS.

BRIEGER claims to have discovered that the bacillus of enteric (typhoid) fever secretes a ptomaine, which he calls typhotoxine, the injection of which into animals appears to cause lesions similar to those of enteric fever in man. Inoculation against the disease will now be in order. But as this disease has been misnamed we would suggest the name enterotoxine for the ptomaine.

ANOTHER new danger has been referred to by the Lancet, that of stuffing upholstery with old rags, which may have been unsuspectingly infected. It appears that such stuffing is in common use by upholsterers, even in this country, and the sources of the rags should be vigilantly looked after.

THE great importance of the most absolute personal cleanliness in attendance upon the sick was the subject of a recent lecture before the Abernethian Society by Dr. Thorne. He gave instances of the dangers of handling food by those in attendance upon the sick with infectious and other disease.

NATURE is remorseless in exacting the penalty of disease and death for any breaches in her laws as to cleanliness, Dr. Thorne said. The innocent suffer with the guilty; unintentional acts, involving want of cleanliness on the part of those devoting their lives to the care of their fellows, are as swiftly followed by fatal consequences, as is the crass neglect of those who deliberately violate every law of cleanliness.

Two thousand cases of enteric (typhoid) fever during the last quarter of last year, with 125,000,000 bacteria to the glass of the South side water, and the epidemic increasing last month, is chiefly what is troubling Pittsburg, Pa.

DREAD of epidemics is natural, but it seems unnatural that there is little dread of consumption, which destroys the life of 70,000 persons in England and Wales every year and probably not less than about double that number on this continent. Dr. Ransome, at the last annual meeting of the Sanitary Institute of Great Britain, said: I think it may be regarded as fully proved that the breathing of air rendered foul by previous respiration is one of the conditions required to enable the bacillus of tubercle to take root and to grow in the lungs. Re-breathing staled air is a great and common evil.

ANOTHER evil which is monstrously prevailing, especially among women, is the habit of constipation. Sir Andrew Clark in a paper read at a late meeting of the London Medical Society stated that he ascribed a large number of cases of anæmia or chlorosis in young women to the accumulation in the intestines of fecal matter, its decomposition and the subsequent absorption

into the blood of the poisonous products. The habit is unquestionably the cause of many female troubles.

THIS bad habit may usually be easily overcome by a little persistent effort every day at a regular hour, together with kneading all over the front of the bowels with the fingers. Sometimes in the beginning an occasional injection of tepid water may be necessary. All sorts of aperient medicines only leave the bowels more dormant than before their use.

A NEW remedy for constipation has been successfully used by Dr. Sahli, of Berne; a sort of artillery practice which seems destined to replace the lighter ammunition (in the form of pills) which has been altogether too commonly used. It consists in the patient, lying back downward, rolling a cannon ball, or other round mass, weighing from 3 to 5 pounds, up and down over the uncovered abdomen for 5 or 10 minutes every day. It is of course simply a form of massage which has been long practiced. The ball may be warmed or wrapped in woollen.

SULPHUROUS acid gas is probably sure death to all bacilli. But the difficulty in disinfecting a room is to have the fume reach every lurking bacillus. A Mr. Heckert has observed that in Italy freedom from epidemic disease has corresponded with volcanic activity, and that consumption is unknown amongst sulphuric acid makers.

AT the meeting of the Society of Medical Health officers last month in London, a paper was read on Bacteriological Water Test. Among other conclusions drawn was the following: "No bacteriological water test can satisfy the demands of hygiene unless it is qualitative, distinguishing between harmless and pathogenic microphytes. No such test is at present known."

THE meeting of the Health Section of the N. Y. Academy of Medicine in December was a very profitable one; profitable to the public if it were carefully heeded and acted upon. The value of tree cultivation in the streets of cities and of small public parks in the most populous parts was dwelt upon. Dr. Roosa gave a paper on the stable manure nuisance and its ill effects on the public health, and urged strongly that the Board of Health should insist that the manure be made up into bales in the stables where produced. Dr. Blains read a paper on Bovine tuberculosis, in which he gave strong evidence of the communicability of the disease through the milk of the diseased cows.

DR. PETERS said, the Fourth Avenue Railroad stables were models of hygienic care, and if all other stables would pursue their plan of constant white washing and lime sprinkling with a little carbolic acid in the lime, with their other precautions, they would minimize the injurious results. The health of their horses was remarkable, and an epidemic in such a stable was impossible.

DR. CHAPIN presented a suggestive paper on the management of the poor in the City. The chairman, Dr. Hadden, called the attention of the society



to the changes which had recently been made in the management of the Board of Health, and deprecated the tendency to lessen medical influence on the Board. Dr. Peters gave a general review of sources of disease caused by the impure air of cities. The prevalence of diphtheria depended in a measure on the condition of the streets. When the streets were clean, the disease was less common. The streets should not be torn up during the warm season.

DR. STEPHEN SMITH offered a resolution which was passed, that a committee of the section be appointed to confer with the authorities and urge the importance of not allowing the streets to be torn up between June 1st and October 1st of each year, also for the devising of some plan for a better method of street cleaning.

REMEMBER, in all ordinary cookery simmering at  $180^{\circ}$  is more effective in rendering meat tender than violent boiling at  $212^{\circ}$ .

A LUMP of washing soda laid upon the sink grating will prevent the clogging of the pipe with grease, especially with the occasional use of boiling water.

A CORONER'S jury in Philadelphia "found," after a post mortem, that the death of an eleven-year-old boy had been caused by cigarette smoking.

IT is now believed that it is dirt (waste matters in the wrong place) and not money that is the root of all evil.

IT has now been discovered (Med. Press, Lond. E.) that the passage of an electrical current through large bodies of sewage generates enough gas to float all solid particles in a scum on the surface, leaving a clear residual which may be run off.

IN showing how in a thousand ways disease may be prevented, we shall when it does come, make the physician all the more appreciated by the people.

---

FREE.—This magazine will be sent free for one year to any one sending us the full name and P. O. address of twelve good, intelligent reading men, heads of families, in good circumstances, conscientiously selected from among those whom the sender knows personally and believes would be likely to subscribe for a health magazine. See address on title page.

TO SUBSCRIBERS.—This number has been made later than anticipated by reason of the non-arrival of the paper, from being snow-blocked. The next number we trust will soon follow this one.

VERY THANKFUL, we shall be to any who will send in at an early day the amount of subscription for this year. Those who are in arrears for last year and longer need hardly to be reminded that a journal cannot be published without a great deal of money. Will they kindly favor us NOW?

ALSO, we should be thankful if some of our friends, when remitting their subscription or other time, would kindly send us the name and address of a few neighbors or friends to whom specimen copies could be sent.

OUR NEXT NUMBER will contain articles on : Pure Water Supplies ; International Health Legislation and Notification ; Pain and relief—Disease and its treatment ; Prevention of Puerperal (childbed) fever ; Personal Disinfection—"Wash your hands ;" Continuation of "Putrefaction and Infectious disease," and "Micro-organisms in Rooms ;" on Sleeplessness ; Poisonous Foods ; Prevention of Consumption ; Hygiene and the Carlsbad Cure ; Vaccination and many other interesting and profitable subjects.

---

#### NOTES ON CURRENT LITERATURE.

DISEASES OF THE HEART, Modern Treatment of, by Dujardin-Beaumontz, M. D., Paris, translated by E. P. Hurd, M. D., Vol. II., is one of the series of the Physicians Leisure Library ; monthly, \$2.50 per year: published by Geo S. Davis, of Detroit. This is written in this prolific writer's usual pleasing style, and directs the practitioner how cardiac (with aortic) diseases may be treated with the least risk and greatest chance of success. The treatment of aortic aneurism by Electrolysis is given with clinical cases. This author is evidently a cautious practitioner, depending much on hygienic remedies.

THE EPOCH, although barely a year old, is rapidly working up to the highest position among the great weeklies of the day.

THE ILLUSTRATED LONDON NEWS, American edition, is a perfect marvel, considering its superiority to all other illustrated weeklies and its low price. For decades, the English edition has been considered a cheap enough paper at about double the price. The Christmas number was very charming, especially "Faith," and all through the weeks since the high character has been well sustained. There are too many good things to enumerate and we can only allude to some Scenes in Morocco, especially a "Visit to the Harem"; to the "Judgment of Paris;" and "Dog Days." The descriptive and literary part is always good.

THE CENTURY for January opens with a portrait of the imperious, individual, John Ruskin, with a sketch of his character. With other good things too we find "the Catacombs of Rome," the "Upper Missouri and the Great Falls" and "An Elk Hunt on the Plains." "Manual Training in Public Schools" is discussed and Prof. Atwater contributes an article on "Pecuniary economy of Food." Prof. Atwater's articles are always profitable reading. If in the homes of the great labouring class there were a much greater economy in food and liberality in the admission of fresh air, the condition of the class would soon improve, physically, morally and socially. The Century is a great educator.

In the Nineteenth Century, Sir Henry Thompson reviews the progress made in, and combats some of the objections which have been urged to, cremation of the dead ; while he urges anew the arguments in its favour put forth in the Centemporary in 1874.

ST. NICHOLAS, the Queen of Magazines for the Young, in its February visit, besides the Brownies on a real live Whale and some very pretty things "For Very Little Folk" and good things for older girls and boys, brings a very nice and instructive "Story of an Old Bridge"—old London Bridge, built about 700 years ago. It is liberally illustrated.

FINGERNAIL DIRT, Remarks on the Bacteriological Character of, with Investigations and Instructions on Disinfection of the Hands of the Surgeon, is about the title, although somewhat reversed, of a small but instructive pamphlet lately put out by Prof. Furbringer of Erlin. The title itself is profitably suggestive.

THE THERAPEUTIC GAZETTE for January gives from advance sheets another of the lectures of Prof. Dujardin-Beaumetz, of Paris, France, on Hygienic Therapeutics—Hydropathy in chronic diseases; also another able paper, by Dr. L. Wolff, of Philadelphia, on the Ptomaines, their Forensic and Pathological Importance.

THE ASCLEPIAD gives in the last number, besides a lengthy article on scarlet fever, its types, pathology, &c., "The Physiology of Good and Evil," which closes as follows: "Emphatically, science re-echoes the saying in all its solemn import, 'The Wages of Sin is death.'"

THE BRITISH MEDICAL JOURNAL makes the announcement that the last volume (July to Dec. '87) contains 1,460 pages; the largest semi-annual volume of any medical periodical ever published.

IN the Sanitarian Dr. Ziegler of Philadelphia makes an onslaught on tobacco, in a lengthy paper, giving facts which ought to be widely known. We fully agree with all he writes, and moreover, think it time that intelligent people should make up their mind that tobacco, with ardent spirits, as a beverage, "must go."

IN Good Health, a Mr. Ambrose, under the head of "Quack Stuff in Pious Print," slashes into the newspaper press, especially the religious part, for its shameless endorsement of the numerous "patent" frauds upon the market, with which thousands of confiding, easily lead people are yearly dosed to death.

---

THE habits of Mr. James G. Blaine, a great worker, according to the N. Y. World, are very simple. He says he has always been careful of himself; keeps his feet dry, never has used tobacco and does not know the taste of ardent spirits.

ERLENMEYER, in his work on the opium habit, records a case in which fatal tubercular poisoning was believed to have been produced by the hypodermic needle.

THE greatest per capita consumption of opium, according to the Philadelphia Ledger, is in Portland, Maine, the stronghold of prohibition.

VIRCHOW has said that therapeutics continues to be the only department of medical science which is tolerant of rubbish.