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# PUBLIC HEALTH MAGAZINE.

Vol. I.]

AUGUST, 1875.

[No. 2.]

## Original Communications.

### PROPOSED PLAN OF PUBLIC SCAVENGING.

BY MR. GEO. A. DEUMMOND.

(Read before the Citizens' Public Health Association.)

The substance of the following paper and the proposal it covers, were to have been submitted to the public meeting at which this Association was formed; but no opportunity for doing so having then occurred, I readily embraced the invitation to submit the matter at the present meeting:

It is a remarkable fact that, in this great and growing city, no system of public scavenging has ever existed. It is (I am informed on enquiry) true that the Health Committee or Board of Health, have some appliances for the relief of extreme cases, and that on application to them this machinery can or may be set in motion; but it is not asserted by any one that this provision is other than palliative, and its very existence is unknown to the majority of the citizens.

In effect, each householder has the disagreeable, troublesome and costly duty forced upon him of removing from his premises all refuse matter whatever which cannot be passed into the sewers. As a necessity it is impossible for him to deal with as it should be; he must permit its accumulation in or about his premises till a cartload is made up, or till its presence cannot longer be tolerated, and then he must seek out a carter and bargain for its removal.

Again, as a matter of fact, and in consequence of no provision being made for its disposal, the carter is compelled to get rid of it, by depositing it in vacant lots and land in the suburbs

and outskirts of the city—necessarily in the neighborhood of dwellings—and there it still endangers the public health. Indeed I have frequently seen on streets and roads in the lower parts of the city, deposits of garbage of the most abominable description, which had been got rid of in this way.

Further, and apparently as a direct and natural consequence of the above state of things, it appears to be a traditional matter of necessity that all houses in the city should be furnished with outbuildings and have access to a back lane; and, in passing through our most fashionable quarters, a glimpse can be had into a dirty and unpaved lane, presenting a vista of dirt-heaps, where, under precisely similar circumstances, in New York or Boston, the space would be occupied by neatly turfed yards, separated from each other by low painted fences, and permitting the free access of sunlight and air.

In short the present condition of things is a direct defiance of all sanitary laws, without a single countervailing advantage.

How is it to be bettered? Let us lay down this principle—that it is absolutely essential that all house refuse, not tributary to the sewers, shall be removed day by day, or at frequent intervals, from each and every house in the city, and these results flow from it. You at once remove the duty from the individual; it can only be accomplished by co-operation, and it is idle to speak of any other system of co-operation but that already existing—our civic government being in effect nothing but a system of co-operation for this and kindred purposes.

It is the bounden duty of the city authorities to undertake the work, and there is neither originality nor novelty in the statement, nor in the following scheme, for it has been recognized and acted on for an indefinite period by most cities of the least importance.

I apprehend that the function of this Association must always be to deal with general principles and watch results, and that it should not go beyond influencing the authorities to perform the duty in an efficient manner; consequently I do not ask it to deal with the details of the plan which I now propose—nor indeed shall I pretend to do more than sketch it in general terms:

*First*—Let the city undertake the duty, organizing for

the purpose a new civic department, to be called the "Cleaning Department," controlled by a committee as usual, and directly managed by a permanent officer, who should possess the essential qualities of activity, resolution, and some administrative ability, and, if practicable, experience in similar service elsewhere. He should control the whole of the subordinates and be responsible for all charges incurred, and for the efficient working of the whole. The expense of the department should, in the meantime, be met from the ordinary revenue of the city; but ultimately should be provided for by a special assessment for this purpose.

*Second*—The staff and plant should be as follows:

Two Clerks.

Four Division Superintendents, or Foremen, whose duties should be wholly out of doors.

*One hundred* street scavengers.

Fifty-three large carts or waggons on two wheels, not smaller than two cubic yards capacity without heaping, and better larger.

Fifty-five large heavy draught horses, not less than 15.3 high, and all necessary tools and apparatus.

*Third*—Provide three or four depots outside the city, conveniently accessible from the main country roads, to which all refuse matter can be carried by the waggons, and from which it can be supplied to farmers and market-gardeners as manure. At first it must probably be given away, but ultimately it will be salable, and some considerable sum obtained from this source to the credit of the department.

It will be found to be necessary that the service be conducted with absolute regularity, so that the time of the visit to each street may be counted on with certainty, and all refuse may be put in an accessible place, and after the service is once properly started, the retention of all such matter on any premises should subject the offender to a smart fine.

The whole business of the department as above sketched, can be managed by a corporation with efficiency, economy and success, and should be taken in hand as a whole, and the details worked out by the officers who are to be continued in power, and I trust that no attempt will be made to work it by contract, which is certain to end in failure.

Whatever may be thought of the details, let this Association lay down in unmistakable terms, that nothing short of an efficient plan for securing the removal of all offal at short intervals, from every door in the city will be accepted, and let its influence be used to convince the public that however costly such a scheme may be, it can be demonstrated that it may be carried out at a smaller outlay by the city than is now entailed on individuals, and further that the decency and improved sanitary conditions to be secured by this and in no other way, are not to be measured by money.

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### MONTREAL WATER SUPPLY.

BY, DR. J. BAKER EDWARDS.

(Read before the Citizen's Public Health Association.)

It has been frequently and very truly said that Montreal, from its natural situation should be the most healthy city on this Continent. It is certainly placed under remarkable physical advantages, and as regards two great desiderata for large cities, viz.: drainage and water supply, nature has done all in her power, and it only remains for intelligent man to apply known principles of mechanical skill to render these advantages available to every citizen.

The water supply of towns and cities, especially those situated on the banks of rivers, has become in England one of serious magnitude, and its importance to the health of communities has demanded and obtained laws of the most stringent and protective character. If any country in the world can afford an unlimited and boundless supply of water to its inhabitants, it is to be obtained in the British Isles. Favored by the warm exhalations of the Gulf Stream, and the condensing towers of its mountain tops in Scotland, Ireland, Wales, and the Isle of Man, to say nothing of the hills of Mendip and Cotswold, Derbyshire, and the Grampians of England proper, its wonderful population is abundantly supplied by an excessive rain and dew fall. Yet all this exuberance of nature is more than counter-balanced by the

abounding energy and manufacturing industry of the country which expands itself on water powers and water privileges, throwing upon the rivers and streams the irresponsible onus of getting rid as best they may of the injurious and worthless products of their chemical and cleansing operations. Now, after many years of stream and river pollution, after actions for damages which have turned into the pockets of landowners and lawyers, the accumulation of profits of years of manufacturing industry, a Royal Commission is proposed to take the whole subject into consideration, and to place limits on the rights of individuals and communities to use or abuse the streams and flowing waters which flow past their land, and to enable the State to hold these in trust for the benefit of the community at large.

If, as a Dominion, we are wise, we shall, as good and intelligent children, avail ourselves of those great moral and social lessons which our parents in the Old Country have learned at a large cost, both of expense, annoyance, and personal ruin.

The law is as simple as Divine revelation can make it. "Thou shalt love thy neighbor as thyself." If individuals, or companies, or corporations, seize upon common property and undertake public distribution of the benefits derivable therefrom, they are bound by every moral principle to see to it that in serving themselves and their communities they are doing no injury to any one—and if the moral instinct is blind, deaf or halt, the State is bound to step in to the rescue of the citizen.

"I buy meat or vegetables the municipal law protects me, and I have a remedy against the seller if the meat be bad. If I buy milk, I am supposed by some occult by-law of the City Council to be protected from buying milk and water, (how this works I am not prepared to say) but as Dogberry says "It is the law." But if I buy water, the Corporation is the seller and the law-maker too, and I must hold my peace and pay my taxes. I get water, more or less, generally more. More by sand and sediment, more by consequent plumber's repairs. More by fish, alive and dead, "*en gros et en detail*." More on "*de tail*" when they stop by their fragments the water-taps. More on "*de gros*" when they breed and multiply in the fish-pools of Heshbon, near Raven's Crag, where nets would break if we vainly attempted to capture them therein.

I do not trust myself on this occasion to speak of the quality of the Montreal water—it would be from me a “thrice told tale.” I have again and again pronounced it “*unfit for human consumption*,” and my medical confreres generally agree with me in this verdict. Still the fountains play and the waters ripple from granite vases, and the cup is offered to the thirsty wayfarer in the name of beneficence, saying, “come and drink.”

I now present to you some samples of water collected on the 10th of May last for our public meeting, and which I should have then shown and spoken about had opportunity offered, and which I regretted was the best refreshment which could at the moment be offered to the thirsty lips of our eloquent President. This water remained muddy for a month, then underwent a kind of fermentation, and finally settled down to its present stagnant and undrinkable condition. For some years my chemical confrere, Dr. G. P. Girdwood, has publicly denounced the unwholesome condition of the city water supply, and the much respected and experienced Editor of the Canada Medical Journal in this month's issue, speaks out bravely to the same effect and fully endorses all that I have said upon the subject:

“The waters of the Ottawa, which flow past our city, come down in a continuous stream several hundred miles from what is termed the height of land, receiving in its course the waters from tributary streams and rivers, so that it drains the entire valley of the Ottawa. In its course downwards it may be said to remove the refuse drainage and sewage of over half a million of people.

“This is a subject which can be discussed by the ‘Citizens’ Public Health Association.’ The water from our house-taps is a kind of animal and vegetable compound, almost as thick as pea-soup, though not quite as savory; and the only means at the disposal of the tenant, with a view to improve its condition, is the use of a private filter. This is a luxury enjoyed by the man of means; the poor man is forced to drink the water as it is supplied, and thinks his water tax heavy enough without an additional tax for a filter. Hence as philanthropists and political economists, we should not only advocate but insist on the use of a public filter. It is a matter of fact based on observation, that the drinking water of Montreal is particularly noxious to strangers.

Persons visiting our city, either on business or for pleasure, seldom get away without suffering from severe diarrhœa or cholera. It is by no means uncommon for these attacks to prove fatal. We need only to turn to our mortuary statistics to ascertain the fact that cholera, diarrhœa and dysentery are very often fatal during the heat of summer, and this principally amongst the floating population. The citizens themselves occasionally suffer though not in the same degree, as they become as it were accustomed to the impurities. But there are other diseases, equally dangerous to life, which may be produced by the impurity of our water supply—such as typhoid fever, and the generation of the numerous family of entozoa, so commonly met with in children, and which are occasionally fatal. On looking over the work of Dr. T. Spencer Cobbold, on Helminthology, with reference more particularly to the internal parasites of man, the reader becomes horrified at the numerous forms, and injurious results of taking into our stomachs the ova or the young of various entozoa which live and generate within us."

These affections are known to be preventable, and with regard to cholera, diarrhœa and dysentery, they arise frequently from some irritating material taken into the stomach, some substance which the body cannot utilize, and which is therefore cast out. Can we wonder at such a result, when we present as a beverage to our visitors a vile compound of human and animal excrement, fish spawn, vegetable refuse and germs of all sorts. Naturally the stomach rejects it, and what passes into the lower tracts of the intestinal canal acts as an irritant and is thrown off. Why kill off our children by the host of bowel and other derangements induced by drinking these impurities? Our city parents do not like to assume the expense of a public filter, although we believe the expense would be trifling compared to the ultimate benefit to the fair name of the city. To this might aptly be applied the couplet:

" Kill a man's family, and he may brook it,  
But keep your hands out of his breeches pocket."

Some four or five years since I suggested the propriety of an annual clearance and cleansing of the Mountain Reservoir, and upon its subsequent drainage an amount of filth and live stock was



found in it fully to justify my disgust at its then condition. Since that time, however, it has, I am informed, been but once emptied, and it is now in a not very inviting condition.

I have advocated, and still advocate a general filtration of the public water supply, and as the materials are at hand and not costly, I again urge this upon the attention of the citizens. The mode of filtration is simple, and only implies intelligence and labor. The most available filter is composed of

1. Fine sand, 2 ft. 6 in.
2. Coarse sand, 1 ft.
3. Shells, 6 in.
4. Fine gravel, 3 in.
5. Coarse gravel, 3 ft. 3 in.

These are best disposed in waves, and below the convex curve of each undulation is placed a porous earthenware pipe conveying the water into a reservoir, whence it is distributed. This filter will remove the whole of the suspended matter, three-fourths of the organic matter, and one-half of the mineral salts in solution, yielding a very pure and soft water. It would be necessary to have two or more sets of filters, and about once a week or once a fortnight throw one set out for cleansing, which may be done by simple washing, drying, and re-sifting of materials. The quantity filtered is about eight gallons per square foot of surface per hour. Filters of 270 square feet would yield about 1,700 gallons per hour per day. The cost of such filtration is about \$575 per annum per million gallons per diem.

The distribution in Montreal is excessive, amounting to sixty or seventy gallons per head per day, while Glasgow and Edinburgh supply thirty-five gallons; London, twenty-one to thirty-four, by various companies; and Liverpool has reduced its consumption from  $33\frac{1}{2}$  to  $19\frac{1}{2}$  per head. Now, as it is much cheaper to filter the water than to increase the supply, by preventing the large amount of waste now going on we might practically double the available supply and have an abundance of water at thirty gallons per head and the cost of filtration would be saved.

As a house filter I can cordially recommend that recently constructed by Messrs. Prowse Bros., of this city, which combines the advantages of the best known materials, simplicity of structure, readiness of cleansing, and consequently durability.

In conclusion I would urge upon the public to demand from the City Fathers water that *is water*, and *nothing but water*, on the above sanitary and economic grounds.

## Sanitary Reports.

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### CITIZENS' PUBLIC HEALTH ASSOCIATION.

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This Association held its first public meeting in the rooms of the Natural History Society, on the 11th ult. The meeting having been called to order, the President gave a short outline of the work proposed to be done by the Association. He recommended that the Association should feel their way cautiously, and not put their hands to anything they could not carry out in a practical way. He said they should inform themselves of all the influences affecting, or threatening to affect, the public health; enquire into the causes, origin and distribution of the different diseases prevalent in the city; bring before the Board of Health all matters appertaining to health, and obtain from as many sources as possible reports of yards, drains, &c. He laid great stress upon educating the public mind in matters of hygiene. He continued by saying that it was only by the influence they could bring to bear upon public opinion that they could acquire power and make themselves be felt as an influential body. He then stated that radical improvement was wanted in the mode of imposing taxes, and their distribution.

Mr. G. A. DRUMMOND was then called upon to read his paper, which will be found in the original communications at page 33.

Alderman McCORD then spoke to the paper in a very able manner, but his remarks seem to imply that we are in a very bad condition as to our treasury. He concluded by stating that if we wanted a healthy city the Board of Health must have more money to work with, and if the Corporation could not give it we must be content to have a special tax levied for that purpose. He said that the committee of which he was chairman was quite willing to undertake the scavenging system as proposed by Mr. G. A. Drummond with a few amendments.

Mr. ALEXANDER, M. P. P., did not put a happier face on our present condition, but rather the reverse.

Prof. A. JOHNSON, LL.D., then stated that the Corporation represented the citizens. They are nothing by themselves. If we can manage to bring public opinion to bear upon them, as has been done by the Temperance Association, we can bring them to a sense of their duty; but so long as we are content to remain quiet and put up with their apathy we may expect nothing. They have money, and we must compel them to apply it in the best way, and not squander it in show outside, but make the inside clean first. The manner of macadamizing our streets is simply a nuisance, they use a soft stone that is ground into dust immediately.

After addresses from Messrs. REDPATH, LYMAN, BURROWS, TURTON, Drs. CORDNER, GIRDWOOD and others, His Worship Mayor HINGSTON, having been invited to address the meeting, spoke somewhat as follows:

GENTLEMEN—I hoped to be permitted to remain silent this evening; but being asked to express my views, I may say they have been already expressed on several occasions, and the views on the substance of this evening's paper have been expressed in the short report of the Board of Health submitted to the Council the other evening, and referred to the Finance Committee for their consideration. It is to me, as it must be to you all, a subject of regret that the citizens generally do not take more interest in matters relating to public health. The report submitted by the Board of Health was one which cost its members much thought, yet, so far, it has not been commented upon by the press.\* We hear from time to time of the uncleanly state of the city, and since this Society is organized we hear somewhat more than formerly. But as this Society is organized to instruct the public in matters sanitary, I should suggest that it begin by informing the people that, if the city is not efficiently cleaned, it is partly because the amount paid by the citizens is totally inadequate for the purpose. Baltimore pays at the rate of \$1.80 per head; New York pays somewhat less; while Montreal, with its difficulties of a

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\*This has been remedied, the press having since discussed the report in question, and endorsed the views of the Board generally.—ED. P. H. M.

climatical character to contend with, never paid more than 18 cents per head, and this year only 10 cents! That so much is done with this limited, this miserably small pittance, is the best testimony that can be offered of the energy of the Road Committee, and of that efficient but overworked officer, the City Surveyor. The streets are to be cleaned this year for *four* thousand dollars! Now, can any one in his senses believe that work of such magnitude can be done for such a sum—work that would require 150 horses and men for a considerable portion of the year? Why, it would not suffice to purchase hay and oats for the horses. It is proposed by the report to which I alluded, to increase this amount, and to place the cleaning and sprinkling under the Health Department. It is also proposed to clean not only the streets, but the lanes and yards also, and I must do my friend, Mr. Drummond, the justice to state that the practical suggestions he made to me some days ago were, to a certain extent, the cause of the introduction of that portion of the report. Should the Finance Committee see its way to furnish the necessary assistance—and I am satisfied that the intelligent and conscientious Chairman of that Committee will do all in his power in the matter—the streets, yards and lanes will be cleaned by the authorities, and individual citizens will be relieved. It is estimated that this work can be done efficiently for \$50,000 annually, or about 30 cents per head—a much less amount, it is believed, than is paid by individual citizens for cleaning at long intervals. When I proposed to take upon our shoulders the cleaning of the city, the members of the Road Committee seemed not disinclined to be relieved of the work, and the City Surveyor, who has to look after the making, grading and repairing of our streets, and the construction and alteration of our sewers—work almost disproportionate to the strength of any man—shared in those views. But a question of money arises, and a question of authority also. The Board of Health has the “power and authority in relation to,” &c., “as are possessed by the said Council,” &c. It is empowered to “adopt and enforce all sanitary measures, and all measures relating to the cleanliness of the city.” But whether it has the power to draw checks upon the city treasury, or whether it has the power to have those checks respected, are

matters now under the consideration of the City Attorney. Of this, however, I can assure this meeting,—that the well abused members of the Corporation are anxious to do all they possibly can towards the amelioration of the condition complained of; and this Association must do its duty in preparing the minds of the citizens to adopt this amelioration.

The following resolution was then proposed by Mr. PETER REDPATH, and seconded by Prof. JOHNSON, LL.D., and the Corresponding Secretary instructed to forward it to the Corporation in the name of the Association :

“That this Association hopes that the Finance Committee of the Corporation will not be obliged to refuse the application of the Board of Health for means to clean the streets and lanes of the city, and to water the streets; and prays the Corporation to take steps to procure the funds necessary to carry into effect the offer of the Board of Health, feeling assured that public opinion will fully sustain them in so doing.”

Prof. JOHNSON, LL.D., then proposed, seconded by Dr. PROUDFOOT, That it is expedient that every member of this Association should seek to strengthen and extend its influence by endeavoring personally to induce others to join it, and that, for this purpose, subscription books be formed and distributed among the members of the Association, or that one or more paid canvassers be employed if thought necessary.—Carried.

A vote of thanks was next passed to Mr. G. A. DRUMMOND for his very interesting and instructive paper on scavenging.

The meeting then adjourned.

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#### CITIZENS' PUBLIC HEALTH ASSOCIATION.

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A meeting of the above Association was held in the Natural History Rooms on 9th inst., at 8 p. m., Mr. Mercer in the chair. In introducing the subject he said :

“Gentlemen, we are met here to-night to consider the question of our water, and a paper will be read by Dr. Edwards relating to that question. The editor of the *Canada Medical and Surgical Journal*, says ‘It is a subject which can be discussed with far

greater advantage to the citizens than by silly remarks concerning our dirty back lanes.' This was said by a doctor who is supposed to feel a very great interest in the health of our city. If there is any one thing more injurious to the city than another it is the disgraceful state of our back lanes. At a previous meeting I made some allusion to this filth that was allowed to remain under the very noses of many of the most eminent physicians of our city, and to-night I repeat the allusion, and I should like those medical men to reply to the charge I now make against them in using their back lanes for storing their manure and garbage from their stables and houses. I say emphatically that they have no more right to throw filth in those back lanes than I have to go and deposit such in their dining-rooms. This is strong language, but it is necessary to use strong language in a case such as this. I will not make any further remarks. I have condensed what I intended to say, and made up in strength what I have lost in length. But I reiterate that it is unworthy a medical journal."

Dr. Edwards then proceeded to read his highly interesting paper upon our water supply, which will be found in our original matter, after which he called upon Mr. Louis Lesage, Superintendent of Montreal Water Works, to explain the proposed new system of water supply.

Mr. Lesage, although he had come unprepared to address the meeting, yet feeling that he should be able to say something upon such matters, spoke as follows:—

"Our water supply has been increasing from a small pumping engine and a wooden pipe at the mountain to that we now get from the Lachine rapids. It was proposed to go some thirty or forty miles distance, where a pure lake could be found, and conduct the water to the city by gravitation, and the question was considered whether this should be adopted in preference to the present works, but as this would entail a very large expenditure it was thought the city could not yet undertake such a large work; but the idea of making a new canal of large dimensions did at last prevail. The first part is now in the course of construction, and is expected to be done early next year, the remainder will be done in a few years. The water power is sufficient to raise one hundred millions of gallons in summer and thirty-one millions in

winter. We are aware that these calculations are not exactly correct, but at any rate they are on the safe side. The quantity is abundant, the quality is not very good, and the question of filtering the water has come up. A large filtering basin is a necessity. It is easy to filter it either by side filtration or through filtration. I intend to take great pains in studying the question, and will bring it under a practical estimate. All the filtration should be done below for the reason that it is cheaper, and there is less weight to raise, friction also being less. The water committee have not taken the water filtration into serious consideration yet, but several allusions have been made to it, and I do not think it will be very long before we may have it in actual working. Our winters are so severe that it may have to be done under cover, and I am afraid that the cost may somewhat exceed that quoted by Dr. Edwards. Now the water supply will not pump more than 8,000,000 and we use 9,000,000; the rest over and above 8,000,000 is supplied by steam.

The service pipes in the city are now coated with a sediment, which, by a sudden flow of water, becomes disturbed, and of course enters the houses. It would cost so very much to clean it off that I am afraid to propose it."

Alderman McCord then rose and made a few appropriate remarks, and said that we must limit ourselves in quantity of land and have the best system of filtration that is possible to be had, and stated that the Water Committee had instructed the Superintendent to consider the best mode of filtration, and to place before them estimates of its cost.

Alderman Stevens then rose, saying: "The great difficulty that has been experienced ever since I have been in the Corporation has been expense, as we always have been in arrears. Every gentleman here knows that at one time we had to get a regiment of soldiers to clear away the ice at the Aqueduct. It is to our interest to wait until the new cut is finished and see how it will work before spending a million and a half down below, for if the cut is useless the rest of the money would be saved. Our difficulty has been that the aqueduct becomes pretty much solid ice during winter, but our theory is that it will not form nor gather under a covered surface, but whether it will be driven there we cannot say."

"We have enough of a water supply now for drinking purposes, but we have not enough for hydraulic purposes. We are under great expense now, and I have no doubt every gentleman perfectly understands when his water bill comes due that his water tax is a very heavy one, hence we have never gone seriously into the matter of filtration.

"If our supply ever becomes polluted from the formation of a village above our present cut, it would be necessary to get water from a place forty miles back called the Lac Ouara. This back water has a lake capable of supplying ten cities. The only reason we do not go there directly is that we can supply the city much sooner the way we are doing. Our city is not large enough to go into this expense. When it becomes large enough it will be quite easy to go into this system of supply by gravitation. I am in hopes to be able to put on a filter in front of our receiving pipes at the reservoir. I do not favor a settling basin."

Dr. Carpenter expressed great fear of any such thing as a settling basin, stating that water, when left to stand, absorbs many foul and poisonous gases.

Dr. Baynes then rose and suggested that considering the filth that had accumulated in the pipes a filtering metre be furnished to every house.

A vote of thanks to Dr. Edwards was then proposed by Dr. Cordner, seconded by Ald. Stevens, and carried.

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## Correspondence.

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*To the Editors of Public Health Magazine :*

SIR,—I propose to send you a few notes on sanitary matters in reference to dwelling-houses, with suggestions for removing or mitigating the evils which arise from the imperfect drainage and ventilation of the same. These notes are drawn from an extensive practice of many years in designing and constructing



dwellings, and will be given pretty much as they were taken down and (in some cases) corrected by subsequent experience.

I am, Sir, yours, &c.,

JAMES H. SPRINGLE,

Architect and Civil Engineer.

MONTREAL, July, 1875.

Note 1.—*On Sewer Gas.*—Every householder in a sewered city like Montreal should clearly understand when he provides that modern convenience—a water closet—for his dwelling-house, that he introduces directly into said dwelling, and most frequently into the immediate vicinity of the sleeping apartments of the same, a tubular branch of the common sewer of his street, and that whatever of effluvia or foul gases, or vermin, are generated or find place in the sewer, can also—unless hindered by some clever expedients of the plumber, which will be noticed hereafter—pass directly up from the sewer to the water-closet, the bath-room, and such bedrooms as have fixed wash-stands, and in a greater or less degree, to all the apartments of the house.

Moreover, this branch sewer is exposed to a number of risks and casualties from which the common street-sewer is exempt. It is frequently made of lead very little thicker than stout brown paper. By the ingenuity of the plumber it is passed underneath kitchen floors, behind *stud* partitions and between floors and ceilings; at every turn it is liable to have its joints broken and displaced by the carpenter who has to cover it up out of sight; so that, irrespective of trapping and ventilating, it requires the greatest care and the closest watching, to keep this branch sewer and the works attached to it, intact, after it has been fixed in place by the plumber.

When it is considered in addition to the above that cheap and, consequently, defective plumber's work is very prevalent, it is not surprising that ninety out of every hundred dwellings, having water-closets, are troubled more or less with sewer effluvia; and, <sup>we say</sup> if it should be found that this effluvia shifts to different parts of <sup>the</sup> house with changes of the wind, sometimes appearing in the living rooms at the lower parts of the house, at other times in the sleeping rooms and occasionally at opposite sides of the house, it is pretty certain that the branch sewer or soil pipe is

broken or displaced under the basement floor, and no time should be lost in having it repaired. If effluvia is observed<sup>x</sup> in the vicinity of the water-closet, the bath-room, or the fixed wash-stands, it can only be effectually removed by continuing the branch sewer or soil pipe up through the roof, of the same size as it is below, made of soldered tin and covered with a Tredgold ventilator of the same material. *more especially*

A very excellent plan for getting rid of effluvia from bath-rooms and water-closets<sup>x</sup> is the following: Every day, as soon as the bath service is over,<sup>x</sup> half fill the bath with fresh cold water from the tap, and let it remain undisturbed till shortly before the bath is required the following day. The water will absorb any effluvia which may be present in the air, and if once or twice a week, a handful of any disinfectant is dissolved in the water before it is run off, sewer effluvia will soon disappear if the traps of the plumber's work are in good order. *which have no ventilation*

In dwellings without baths, the kitchen sink should be made use of by letting it stand nearly full of fresh water all night; and, by occasionally dissolving a disinfectant in the water before running it off, the smell from the sink will soon cease, if the waste-pipe is properly trapped. *these expedients are by no means intended to supersede ventilation as before described.*

#### BOOKS RECEIVED FOR REVIEW:

Mr. H. F. JACKSON has sent us for review "Advice to a Wife," on the Management of her own Health, &c., &c. By Pye Henry Chevassé, Fellow of the Royal College of Surgeons.

**THE CHRISTIAN WORKER:** This is a new contribution to monthly journalism. Published under the auspices of the Young Men's Christian Association.

The main object of the publication is to diffuse information concerning, and to afford increased and systematic publicity to, the work in which the Association is engaged; also to furnish, for the guidance and encouragement of Christian laborers, concise reports of the progress made by Evangelical organizations throughout the world.

Price: five cents per copy, or fifty cents per annum. Half-price to members of the Association.

# PUBLIC HEALTH MAGAZINE,

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AUGUST, 1875.

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## SMALL-POX HOSPITAL.

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A gentleman writes to know if the authorities are really in earnest about the division of \$50,000 between the two hospitals at present existing, and asks us to give some suggestion for the help of the Corporation, and also to let our readers know both something of the disease itself and how it is managed in other parts of the world.

Fever and small-pox hospitals have been long established in many large English towns; but of late years it has become usual for the civil authorities to erect temporary hospitals during outbreaks of infectious diseases; so that when the disease is discovered, those affected are at once removed from their homes. Thus the probability is that the disease is checked and in a measure prevented from spreading,—an admirable plan where the climate at all seasons permits it.

In speaking of small-pox, Sir Thomas Watson says: "There is no contagion so strong and sure as that of small-pox; none that operates at so great a distance." The contagion is so strong that it may be carried long distances from street to street. The poisonous material is thrown off from the cutaneous and mucous surfaces—the exhalations, excretions, and secretions also teem with it. The air soon becomes contaminated—it attaches itself to the clothes, and it is so tenacious that, though excluded from the air, it may remain active for an indefinite period.

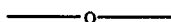
Seeing, then, the vitality of which it is possessed, if a permanent hospital is to be built, the greatest care should be taken to use materials of the least porous nature both within and without. The walls and ceilings should be capable of being purified

and thoroughly cleansed by ordinary ablution, and, for this purpose, surfaces such as slate for walls and floors, and soldered tin for ceilings, would answer. The expense of this would not very largely increase an ordinary estimate of other material. If the hospital is to be constructed like an ordinary dwelling, we think most people would rightly deem it as insanitary. On the other hand to ask a body of gentlemen with \$25,000 to build and rebuild a new small-pox hospital whenever the old ones have become too impregnated for the safety of the general public, is absurd. No other body but a city corporation is fit in this country to undertake such a task. We have no Sanitary Board of Guardians, as they have in England and elsewhere, to undertake such an onerous duty. The cry that is always in the mouths of the people of the Province of Quebec, is the two religions and two nationalities. Whatever is done for the English and Protestants must be done for the French and Roman Catholics, as if disease was a discriminator of religion or nationality. That the large-hearted men who direct the Montreal General Hospital do not think so, is evidenced by the fact that there are more Roman Catholic patients within its walls than Protestants. If we learn anything from the parable of the Good Samaritan, it certainly is, that religion has nothing to do with doing good to our neighbor, as the wounded man's necessity was the only passport to the stranger's benevolence.

To fritter away the grant by a division, is such pure pandering to the unworthy cry of bigotry at a complete sacrifice of the general good that it will only be another monument of our shame; for it must be well known that to attempt to build, furnish, and equip a small-pox hospital with \$25,000, is only a premium to call on the city for \$50,000 more, for it cannot be done.

If the Corporation do not wish to undertake the responsibility, then let the whole \$50,000 be given to trustees, composed of English and French, and with it the old Hall house and site: then build or renovate what is necessary, appoint a staff of medical officers, nurses, &c., and have only one hospital—give it the name "Civic Hospital"—that will satisfy all parties, both national and religious. The city will be thus doing its own work and the public helping the poor who cannot isolate themselves.

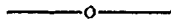
There are many persons who would willingly pay to be attended there, rather than infect their own houses and families. But, above all, let vaccination be compulsory, and subject the refractory to a fine if they neglect it.



### ST. GEORGE'S INEBRIATE HOME.

We have seldom been more gratified than in visiting an establishment opened as an Inebriate Asylum by the benevolent exertions and substantial support of the congregation of St. George's Episcopal Church, and which is under the able direction and attentive oversight of Mr. Frederick Barnjum, aided by the truly maternal care of Mr. Barnjum's mother. For situation and scenery the residence could scarcely be surpassed. The house, while it has the cottage character, is really a large double-house, with verandahs, and the internal arrangements most complete. On the ground floor is a spacious dining-room, communicating with offices for the culinary department. From the hall you enter a pleasant room used as a library for the inmates; here there is a small selection of books with shelves that invite the kind liberality of the many who would take a delight in adding their quota to what is to afford one of the rational means of employing the time and attention of those who have voluntarily subjected themselves to the restraints of "The Home." On the left you enter the suite of apartments belonging to the Superintendent and his family, and here is a commodious and well-appointed surgery, fitted up with plain medicines, &c. The upstairs has no less than ten excellent bedrooms, with a magnificent large bath-room. The whole residence is neatly and comfortably furnished, and the board and attendance, as far as expense goes, so moderate, that it in every way facilitates this last effort of reclaiming the inebriate. We have seldom seen in any house such general content, and all is made so cheerful and happy that the restraint self-imposed by those seeking to be reclaimed is not felt. A thorough air of comfort stamps everything within and without. There is a pretty garden

full of roses, and looking out on the woody side of Nuns' island, with the beautiful broad river flowing at the bottom of the field, where the boat-house affords constant employment for exercise and health. There is ample room for lawn games, and beautiful large outbuildings for healthy gymnastic exercise in wet weather. It is completely "*rus in urbe*," for while surrounded with nothing but fields, a quarter of an hour's drive takes you into town, or to join the omnibuses that run to the Point St. Charles terminus. The kind hospitality with which we were received and shown over this home for the recovery of the inebriate, gave us the fullest assurance that there has seldom been opened under auspices more favorable and with a better hope of success an establishment so painfully needed and so often asked for. We do sincerely trust that those who have so often in vain sighed for such a home and so continually asked, why have we not such, will at once avail themselves of this great desideratum in our midst. Visits of encouragement and fellowship in the work are felt by those who are giving their life and strength to sustain it as it should be, and we do hope that the noble-hearted persons who have begun this good work will give every aid to the efficient and active labors of the gentleman who has charge, for much depends upon a full and generous trust in his discretion and management for a successful conduct of the establishment. -



## PRACTICAL DISINFECTION.

1. HYGIENE OF THE SICK-ROOM.—The first duties to be attended to in infectious diseases are to enforce isolation of the patient—make certain that the room is well lighted and well ventilated—remove all superfluous furniture, such as carpets, curtains, &c. The nurse should have minute instruction as to the management of the patient, and insist upon the utmost cleanliness being maintained; the disinfection of excreta, slops, soiled linen, &c., and their removal afterwards.

To complete the isolation of the patient, aerial disinfectants must be used. The best manner for doing so is by means of a sheet moistened with a strong solution of chloralum, carbolic

acid, or Condy's fluid, and suspended outside the door of the room. The clothing should be received in a tub containing chloralum or carbolic acid. The ejecta, &c., should be instantly covered by Burnett's solution, copperas, chloralum, or carbolic acid. Care must be taken in using general disinfectants that they do not counteract each other—for example, carbolic acid decomposes Condy's fluid.

The inunction of the patient with camphorated oil or a weak solution of glycerine and carbolic acid, followed by baths during convalescence in the exanthematous diseases, acts with good results.

2 After a case of illness from an infectious disease, the room should be cleansed thoroughly and disinfected, the furniture and every particle of wood-work should be washed with carbolic acid, soap, or a strong solution of chloralum. If the room has been papered, the paper should be removed. Then fumigate the room with chlorine, sulphurous acid, or nitrous acid gas for several hours. After this whitewash with quick lime and whiting, and re-paper, if desirable.

3 All clothing, bedding, &c., should also be disinfected by steeping in a solution of chloralum or carbolic acid and boiled. The best mode is by baking in an oven for an hour at least at a dry heat of about 240° or 250° Fahr. But every article which can be spared should be burned.

4. DISINFECTION OF WATER-CLOSETS, SINKS, &c.—All traps and sewer-pipes should be constantly under supervision, and frequently have disinfecting fluids poured down them—especially during epidemic diseases—and all the time in Montreal, for we seem to luxuriate in constant epidemics of small-pox, typhoid fever, &c.

5. DISINFECTION OF THE DEAD BODY.—Why do it at all? Because we wish to remove the chances of infection to as remote a degree as possible from the living. The first, the best, and only truly innocuous plan is by *cremation*. By that means the putrid corpse cannot ever slay his brother. But more of this in detail at a future time. Until such time as custom and fashion influence us to the contrary we must be content with washing the body over with a strong solution of carbolic acid or chloralum, placed in the coffin with more disinfectants, the lid screwed down, and buried without delay.

### SCAVENGING.

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Mr. Geo. A. Drummond's paper on "Scavenging" will be found elsewhere. It is a most excellent plan and should be put in operation at once. But the refuse should be removed every day and not allowed to collect, for fermentation from the garbage will surely begin at once, and of course the evil consequences are inevitable. In crowded parts where families are in tenements, a common bin should be used and roofed in to keep it dry. No slops or excrement should at any time be allowed to be thrown into it—because the fermentation will be accelerated and be offensive. Regular and frequent visits should be paid to it.

The cleaning of the streets, and back courts or lanes, is a most important branch of scavenging. Gutters and pavings are so badly constructed that it is next to impossible to prevent filth accumulating. After rain there are numerous small stagnant pools to be seen through the whole city.

The macadamized streets are being constantly pulverized and give off clouds of dust containing large quantities of decomposing animal and vegetable matter—while in paved streets this filth is collected in the interstices.

There can be no doubt that for sanitary purposes the smooth and impermeable surface supplied by the "*Val de Travers Asphalt*" is durable, elastic, and inodorous, and easily cleansed by water.

In the poorer localities, where there is little traffic and much filth, a washable surface such as General Scott's "Selenite" would add greatly to the health and appearance of the city.

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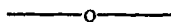
### OUR SIDE-WALKS.

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It is only just, when we are not slow to complain of grievances, that we should be prompt to acknowledge benefits. The measures taken of late by the city authorities to pave our streets and remove the wooden side-walks cannot be too thankfully re-



ceived. In a sanitary point of view it will be fruitful of much benefit to the city, for it is difficult to estimate how far this nuisance of rotten planks has added to the general causes of ill health. Any casual passer-by can see for himself as the plank has been removed how invariably the bed on which these decaying boards were lying, presents a deep black muck of vegetable matter, which, after every shower of rain, threw up an unhealthy gas under the very windows and doors of our dwellings. Every sort of creeping insect that feeds on decaying mould found under our walks an undisputed home and generations of rats have lived and died there. It was full time to rip up this nuisance and do away with this oft condemned system of pathways that was sheltering and accumulating the decayed vegetable matter of years. The shade trees certainly flourish under the system, and to them is due in part the relief of their absorbing the rising unhealthy miasma from the matter below—and it will be found that where shade trees had not been planted the smell and noxious vapour from the side-walks have aided to produce the unhealthiness of the locality. We do not pretend to pass any judgment on the character of the present path-way, whether the flag-stone in the centre would not have been all the better for six inches more width, nor of the combination of the crushed stone on each side; it may answer, perhaps will, but in comparison, sanitarily, let us rejoice in the change.



## Miscellaneous Selections.

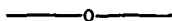
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### THE " BESSEMER."

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The daily journals have already acquainted the public with the fact that the saloon steamer, designed conjointly by Mr. Bessemer and Mr. Reed, crossed from Dover to Calais on Saturday on an official trip, with a large party of scientific and other distinguished men on board. All professions connected directly or indirectly with marine matters were represented on the occasion, so that the peculiar properties of hull outline, machinery, ventilation, and chiefest, of the swinging saloon, might be fully and fairly tested by competent critics. As to the first two items above named, it is not our province to say anything. Great care appears to have been taken to secure the comfort of passengers by special ventilating arrangements for the saloon, as well as for the other parts of the ship. They are somewhat similar to those on board H.M.S. "Assistance." An unusually large number of small syphoned upcasts are provided to carry off foul air from the nethermost parts of the ship. The swinging saloon is specially ventilated by ground glass louvred windows, that extend along each side close to the roof. Although at the time of the passage across, the thermometer in this gorgeous apartment stood only at 65 degrees Fahr., we believe that, for the exigencies of the summer months, further provision for up-casts will have to be made. It is necessary, too, to draw attention to the fact that the stoke-holes were excessively and most unnecessarily hot. The thermometer at the forward door of the aft stokehole (which should serve as down-cast) stood at 96 deg. Fahr., and it is evident that both forward and aft the "plenum" supplies are not sufficient. But all these defects are remediable, and can soon be remedied by the well-known ingenuity of the contractor and his staff. Of Mr. Bessemer's "*spécialité*," the swinging saloon, nothing can be

said, because the apparatus was not in working order, and, indeed, under any circumstances, the sea was so smooth that no crucial trial could have been made. Looking for a fair and complete trial at no distant date, we do not care to canvass the principle of the invention or the probabilities of success, but may record that in point of luxurious accommodation and all sorts of comfortable appliances, the "Bessemer" rivals any passenger ship afloat.—*Lancet*.



### A NEW SEWER TRAP.

Dr. Dukes, the medical officer to Rugby School, has directed our attention to a new sewer trap, patented by Messrs. Potts & Co., of Handsworth, Birmingham, under the name of the "Edinburgh Air-chambered Sewer Trap." This trap, on the house side, communicates freely with the open air, and on the sewer side is placed also in communication with the air by a special shaft. As in Molesworth's trap and some other traps, the principal object of the new trap is to disconnect the house drain from the sewer, so that no sewer air shall pass along the house drain into the house, but under all circumstances which would determine such passage, shall be diverted into the open air. This is effected in the new trap by the house drain opening into a chamber which communicates freely with the open air by a grating. The outlet of the house drain is closed by a flap which opens on the slightest pressure; and the grating is made double in order that charcoal may be placed in the interspace if thought desirable. A diaphragm in the chamber, depending from the grating, is believed to be effectual in determining an in-and-out current of air. The chamber opens into the sewer through an ordinary syphon, or midfeather trap, and on the sewer side of this trap provision is made for attaching a pipe to be carried to the roof of the house. The apparatus is another and very ingenious attempt to apply in common drainage practice the principle of breaking the direct communication of house drains with sewers, so long insisted upon by Mr. Robert Rawlinson. It promises to be a

very effectual and easily applied means for this purpose; and it is to be welcomed as helping to make wholly indefensible the too common practice of builders and architects in overlooking the essential principle of safe drainage which this trap is designed to secure.—*The Lancet*.

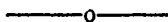


### USE OF STIMULANTS BY WOMEN.

Dr. Edmunds, in writing to the *Health Reformer* on the use of stimulants by women, says:—

A very large majority of the ladies of my own acquaintance on the other side, who are a fair sample perhaps of the ladies living in London society, have acquired the habit of using wine, table-beer, stout and frequently whiskey and brandy, to a large extent, I think, owing to the mistakes on the part of my own profession in the advice which they have given. The result is that the babies of the present generation are never sober from the earliest period of their existence until they have been weaned. This is a shocking statement for me to make, but I should not be doing my duty here, unless I were to make it as broadly and strongly as that. It is a simple fact. The mother's blood, practically, is entirely in common with that of the child. You know perfectly that, if a mother takes even an ordinary dose of such medicine as castor-oil, it will very often affect the baby more than it affects the mother; that one has to be exceedingly careful in prescribing for mothers simply on that ground. Now, what does that simple fact with which all you mothers are familiar show? Why, it shows this that the soothed condition of the body after the mother has taken half a pint of beer is really the first stage of drunkenness in that child. When I hear a mother telling me that whenever she takes a little whiskey and water or brandy and water because the child is fractious, she finds that her milk agrees with it better, I am obliged to ask her if she knows what she is doing; if she knows that she is simply making herself the medium for distilling into her babe's system almost the whole of that spirit which she takes into her own; and whether she is aware that that soothed condition of the child is really the

first stage of drunkenness. The fact is, the baby is only the infinitely more sensitive extension of the mother's system, and it is more likely than any other part of the mother's system to receive the things which are injurious that are taken through the medium of the mother's diet. Well, now, ladies, bear that in mind when you are told to take wine, or beer, or brandy, understand that you are merely distilling that wine, spirit, and beer, into your child's frame, that the very mould which that child is to preserve for the rest of its life is being constructed out of blood that is alcoholized—out of a condition of the system in which intoxication is the real, substantial element for the first twelve months of its growth. I ask those of you who may have thought it your duty to recommend young women who do not know better to take those things, whether that is not a grave and important fact for you to think of.



### SMOKERS ! BEWARE !!

*You don't know what you are doing !*

You are "*only just* enjoying a pipe " on your way to work, or while you are working, or after work is done ?

" *Only Just* " ? What does *only just* mean ?

You are *only just* spoiling your digestion and your teeth, injuring your liver; making your complexion sallow, your eyes dull, your life sluggish; and sowing the seeds of various chronic and acute diseases, which may be long in showing themselves, but will surely come at last—in short, you are *only just* committing suicide by a slow but sure *poison* ! Poison ! say you. Who says it's poison ?

All medical writers class tobacco with alcohol, opium, and other POISONS. Dr. Hossack says that " numerous instances of dyspepsia, apoplexy, palsy, epilepsy, and other diseases of the nervous system, are attributable to the use of tobacco." Dr. Waterhouse says that " the oil of this plant is one of the *strongest vegetable poisons*, insomuch that we know of no animal that can resist its mortal effects."

“Well, but we have known many people cured of diseases by it.” That may be. we have known many cured by alcohol, opium, mercury, and even by prussic acid itself, which is the deadliest of poisons, but these poisons never cure, without injuring the system at the same time. You may chew tobacco to kill the worms, but you will kill your stomach as well. You may smoke to cure the tooth-ache or the head-ache ; but the poison will take up its quiet dwelling in your system, and shorten your days.— Besides, don't be *always* taking medicine ; and be so kind as to take it in your own rooms, along with your castor oil and salts ; and then *we* shall not be poisoned by your smoky air. A celebrated physiologist said that tobacco was bad, even in small quantities, for all persons in health ; and that it was bad as a medicine, except in asthma, and that then it should be used only when the fit was coming on.

Now, lads ! you that are just wavering whether to begin or not, *don't begin !* Keep your nose and mouth clean, and never touch the filthy weed. Never fear being laughed at. If you want to be manly, show that you can stand a scöff or a jeer ; improve your minds at school and by reading ; breathe the fresh country air ; lead useful lives ; keep yourselves sober and chaste ; and then you will be noble men, and happy ones too.

And you, teetotalers ! Are any of *you* inconsistent enough to smoke ? There is scarcely a reason you give for smoking but the drinkers urge the very same, sometimes with greater force, for drinking. A great authority in these matters has said that “Moderate smoking is more physically injurious than moderate drinking.” The only difference between tobacco and alcohol is, that the one deadens, while the other inflames the passions. Your pipes are a terrible stumbling-block in the way of teetotalism, and injure your health and character more than you are aware.

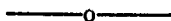
Respectable smokers ! you that enjoy your fine-flavoured cigar in your own gardens ! Think of these lads and truly vulgar people whose practices you are encouraging. Give it up for their sakes.

Christian professors ! you know that you cannot justify smoking by a single principle of the Gospel. It is one of the lusts of

the flesh which you must crucify, if you would do your Master's will.

*Smokers ! Snuffers ! Chewers ! Opium-eaters !*

Throw your weeds away. Break the pipes. Burn the boxes. Kill the insects on your plants, and not yourselves, with the tobacco. Give it up altogether and at once. It is the only safe cure. It may be hard work, but others have done it, so why should not you? And when you have given it up, *get your neighbors to do the same.*—*P. P. C., Oberlin Press, Warrinton.*



### BURIAL ALIVE.

In a long letter addressed to the *Times*, Mr. Seymour Haden deals with the various objections which have been urged against his proposals for a reform in the mode of burial. The horror of burial alive, by mistake, is one of these, and therefore, in order to demonstrate its groundlessness, he addressed a question upon this point to Sir James Paget and five other leading hospital surgeons and physicians, asking whether it has ever occurred to them, in their extensive experience, to see a case of so-called suspended animation or trance, which, in their opinion, could be mistaken for death; and whether they thought, taking the present state of medical knowledge into consideration, that the occurrence of such a case, or of such a mistake, could be regarded as possible. Their reply is unanimously and emphatically to the effect that no case of the kind has ever happened within the experience of any one of them; and they further express a strong belief that the dread of such a contingency is without ground, in this country, while they state that the signs of death are as certain after a few hours' suspension of the vital functions as they can be after many days.—*Public Health, London.*

CAPTAIN BOYTON.

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Captain Boyton may be fairly congratulated on the successful accomplishment of a feat which demonstrates the efficiency of his swimming apparatus, and the courage, self-reliance, and powers of endurance of its inventor. We are indebted to the courtesy of Dr. Diver, of Southsea, for the following interesting particulars. Dr. Diver saw Captain Boyton on the morning of the day he left Boulogne for Cape Grisnez, at the Hotel Christol. He was in perfect health and spirits, and stated that he had been taking great care of himself, and living principally upon underdone beef-steaks and eggs. There was a contrast between the state of his health on this occasion and that on which he previously attempted to cross the Channel. He was received on board the "Prince Ernest" at about 2.30 on Saturday morning, when he had been about 23½ hours in the water. He was perspiring very freely, complained of a general stiffness, with pains in his wrists, from paddling. He stated that for the first few hours he suffered terribly, and that he even wished his dress might burst and he go down. He was very sleepy at this time, and actually slept in the water and dreamt, waking with a start, and finding himself paddling. Some very strong green tea was given to him, which dispelled all his unpleasant symptoms. The last two or three miles, he said, seemed never-ending to him, and he would not again go through what he had experienced for any money. He was undressed, sponged and rubbed down, and placed in hot blankets. His face was very red, and in some places the skin had cracked from exposure to the sun and salt water. He was fatigued, but not very much, considering what he had gone through. His face was greased, and cold wet rags afterwards applied to it, which relieved him much. His pulse was 71, and his temperature 99°. The action of his heart was feeble, but this is natural in him, and was observed on the former occasion. He was full of spirits at his success. In about an hour he walked to the Pavilion Hotel, looking, with the exception of his face, very little the worse for his interesting trip.—*The Lancet.*



## Editorial Notices and Answers to Correspondents.

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HOUSE OFFAL.—A correspondent says that, according to the instructions of the City Clerk, of which due notice was given in the city papers, he placed a barrel of house offal in a convenient position for the scavenging carts to take away, but to his astonishment it was not touched, but had evidently been disturbed and turned up with a shovel. He went to enquire about it, and was told that he must have had matter in the barrel other than lawful offal. He says he had coal ashes mixed with the garbage. The triumphant sanitary policeman said, "There, I told you you must have had stuff in your barrel that should not have been there." So he writes us to define to him what constitutes house offal. On looking at the appendix of the municipal by-laws for 1870, page 187, sec. 12, we find that "House offal shall include any dead animal, dirt, sawdust, manure, soot, ashes, cinders, shavings, hair shreds, oyster, clam or lobster shells, and all garbage, whether consisting of animal or vegetable matter, and other offensive substances." Would the Health Committee please inform us by what rule the scavengers are guided in their choice of what shall be taken or not taken?

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*To the Editor Public Health Magazine :*

DEAR SIR,—Is there no influence which the new Health Association can bring to bear on the Catholic pulpits throughout the country to induce them to draw the earnest attention of the *habitans* to the necessity of isolation in small-pox cases? Would not a committee calling upon our energetic Co-adjutor-Bishop Fabre, have some good effect? Residing as I do during the summer in a French-Canadian parish, I am painfully aware of the utter ignorance prevailing with regard to small-pox. In fact I sometimes think the old women of the parish rather enjoy a good small-pox epidemic. Yours truly,

"ROMAN CATHOLIC."