Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. 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 scanning are checked below.

L'Institut a numérisé 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 numérisation 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
- ☐ Only edition available / Seule édition disponible
- ☐ 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.

- ☐ 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
- ☐ Includes supplementary materials / Comprend du matériel supplémentaire
- ☐ Blank leaves added during restorations may appear within the text. Whenever possible, these have been omitted from scanning / 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 numérisées.

☑ Additional comments / Commentaires supplémentaires: Continuous pagination.

PUBLIC HEALTH MAGAZINE.

VOL. I.] SEPTEMBER, 1875. [No. 3.

Original Communications.

—o—

ABATTOIRS.

BY J. J. DUGDALE, M. D., C. M., HEALTH OFFICER.

Amongst those matters relating to public health which from time to time have engaged the attention of the Board of Health of this city, that of the erection of abattoirs has been, for several years past, somewhat prominent and pretty freely discussed. It is cause for regret, however, that, notwithstanding the frequent discussion of the question, and the almost general admission by the butchers of the need which exists for the erection and maintenance of such public slaughter-houses, yet, up to the present time, no definite steps have been taken towards the accomplishment of such purpose either by the butchers or on the part of the Board of Health.

Certainly, last year, the Council took an important preliminary step in that direction by authorising a deputation to proceed to the United States, visit several of the principal cities, and make inquiries regarding the character of their abattoirs, their mode of slaughtering, &c.

The report of Alderman McCord, the present Chairman of the Health Committee, one of the deputation, lies before me, wherein the Alderman clearly and concisely details his opinions regarding the question as it relates to this city, having examined the abattoirs at Jersey City, those on the Hackensack and at Brighton, in the suburbs of Boston, as well as many belonging to firms or private parties. It is impossible to do justice to the report by a simple reference such as I can make to it in

this way. but I may be permitted to note two recommendations. "First, that the city of Montreal build an abattoir after the most approved principles, furnished with every appliance for facilitating the work to be done and meeting sanitary requirements, and in this abattoir alone should the killing of animals intended for food for the city be permitted. Secondly, that the butchers should associate themselves in a Joint Stock Company for the purpose of erecting and maintaining an abattoir." The latter recommendation Alderman McCord prefers, and states that "None of the abattoirs visited are the property of the City Corporations."

I have no desire to be considered impracticable, but I submit that, with more than eighty slaughter-houses in various parts of the city, some of them located in the most densely populated districts, and many of them without any system of drainage to carry off the animal refuse and blood, it becomes the duty of the Corporation to erect the abattoir—if the butchers will not undertake that duty—and it does not appear at all likely that they will do so, or that they recognize it as a duty—and thus remove from our city one cause of the many preventable ones which are producing disease and death in our midst.

It is scarcely necessary to say that as a result of slaughtering animals in so many places the earth in the locality of each is saturated with the blood of the animals killed, mixed with the water used in the process of cleaning, and this liquid—in some cases reported to me—finds its way underneath the foundations of dwelling-houses, producing most disagreeable effects upon the inmates—so that the inhabitants living in the neighborhood of those slaughter-houses, not only suffer from breathing the polluted atmosphere surrounding their dwellings, but, on closing their windows in the vain hope of excluding the poison from without, they find that they only succeed in condensing it within.

There is no intention on my part to blame or cast any reflection upon the butchers of the city as a class; on the contrary, I could name several of them who possess slaughter-houses which are models of cleanliness and completeness in almost every respect. Yet from those establishments the washing and other refuse must necessarily find their way into the sewers, speedily undergo decomposition, and emit their poisonous exhalations by the

shafts and gratings at the corners of the streets, and, as previously intimated, the greater number of those are almost entirely destitute of all sanitary regulations. There are many other evils to which allusion might be made as necessarily connected with such a condition of affairs. The meat, if kept even for a short time after being killed, in the atmosphere of the slaughter-house, is impregnated with the foul odors, and soon becomes tainted and unfit for food.

Again, it is utterly impossible for our two Meat Inspectors to see and examine a tenth part of the meat killed in the city, or the large quantities introduced to the markets by the farmers from the surrounding districts of country.

The Inspectors have shown themselves very efficient in the discharge of their difficult duties since their appointment to that office about a year ago, having seized and confiscated about 14,000 pounds of meat during the twelve months ending the first of August—a great part of which was from animals slaughtered in various stages and conditions of disease. Several small abscesses, filled with fetid purulent matter, were shown to me in the carcase of one animal seized by Mr. Montmarquet. Some of this meat was from beasts that had died—to use the expressive language of Mr. Moore—"before they were killed." Yet, notwithstanding the activity and faithfulness of the Inspectors, I am assured by them that there are large quantities of meat sold which is utterly unfit for human food.

Hence one of the strong arguments in favor of public abattoirs is that, before slaughtering, all animals should pass the inspection of the properly qualified officer, and that no meats should —under a penalty—be offered for sale in the city without the stamp of the Inspector.

It was very correctly stated by one of the butchers at the meeting called by the Mayor, and held a few weeks ago in the Council Chamber, for the purpose of discussing the whole question intelligently with the butchers, that the buildings should occupy a large space, and that for all the purposes of an abattoir at least one hundred acres of ground would be needed. Of course the manufacture of sausages, melting of fat, cleansing of skins, utilizing of blood, and other kindred interests, would be all carried on at the abattoir.

It would be necessary to have an abundant supply of water and a good system of drainage.

The flooring should be impervious to water, say of asphalt, or material somewhat similar in character.

The removal of the fat-melting establishments, especially, from the neighborhood of the various soap factories would be a great boon to the inhabitants living in the vicinity of those factories, as frequent complaints have been made from time to time of the disagreeable effluvium arising from them during the melting operation.

It is scarcely necessary to add that the concentration of those interests in one or two places outside of the city would not only enable the proprietors or authorities to carry them on at much less expense than at present, but would also set free large quantities of valuable land in various parts of the city which might be used for other purposes, so that not only would the land in question become more valuable, but also the properties in the immediate vicinity would greatly increase in value.

There are many other matters in relation to this subject to which I have not referred, but I shall possibly take up the subject in a future number of the PUBLIC HEALTH MAGAZINE.

———o———

PHYSICAL EDUCATION.

BY MR. FREDERICK S. BARNJUM.

The approach of the period for resuming school duties, and the consequent return of hundreds of children to our city, for the purpose of pursuing their studies, induces me to offer a few words of advice to parents on the subject of physical education, not as opposed to, but as I would have it, proceeding side by side with mental education. My experience warrants me in speaking with confidence, as I have for some years past been carefully studying the matter, and watching closely the effect of properly graduated exercise on children of both sexes, and the result has convinced me that physical training is not a mere pastime, but a necessity.

To this I am aware many will reply, "Well, but we have got on very well in the past without all this sort of thing." Very

true; and there was a time when the same argument might have been advanced against mental education—when the arts of reading and writing were considered unnecessary, for an otherwise accomplished gentleman.

Walter Scott makes Douglas say:

> "At first in heart it liked me ill,
> When the king praised his clerkly skill,
> Thanks to Saint Bothen, son of mine,
> True Gavin, ne'er could pen a line."

I fancy few nobles of the present day could be found to agree with these sentiments of the gallant soldier; far from that, the cry is ever onward, and still onward, and in response to the demand, brains are worked as they have never been worked before, and numbers are yearly sinking exhausted in the race. As aforetime, the body was cultivated to the exclusion of the mind, now this is completely reversed, and let me tell the advocates of past supineness that during even the period when they suppose all went smoothly, numbers of children were visited with deformities and maladies, which might, by proper treatment, have been prevented; and adults have carried about with them, through weary years of suffering, the fruits of early neglect. This has been the case more especially with girls; the only training they used to receive, as far as I am aware, was a certain amount of military drill, or some very elementary extension motions. There may have been some exceptions to these, but the fact has never reached me; of one thing, however, I think there can be no doubt, and that is that the physical training of very young children has never received the attention it deserved. If it be admitted, as the above-named efforts to afford exercise go to prove, that physical education was necessary formerly—what shall we say of the present day, when mental education is driven at such high pressure. Is it not most important that there should be some diversion from the tendency to neutralize nerve action, some means of equalizing the circulation—diverting the too great pressures on the brain—calling into play every part of the body, producing a vigorous action of the heretofore tied-up limbs, and thereby insuring a perfect circulation of the blood. Are not parents justly proud of the elastic and graceful carriage

of their children. For how, I ask, can this be so easily attained as by engaging in the beautiful exercises which hundreds of our citizens have witnessed with delight and admiration at my rehearsals, and which a parent expressed to me as being the "poetry of motion." And truly it was so, the verses being composed on those occasions of from fifty to sixty bright and happy children from four to eleven years of age; and it has afforded me no small gratification to receive, as I have frequently done from parents, the assurance that their children had received the greatest benefit from attendance at my classes, and this has been especially the case with children whose growth has been excessive, and who have consequently "contracted a habit," as it is called, of stooping, this "habit" being nothing more than the natural desire to ease the weak and aching loins. the idea that the shoulders have anything to do with it being founded on a misapprehension of the facts. With these cases the only plan is to attack the seat of the weakness, *i. e.*, the loins, for as soon as these are strengthened the stooping position disappears, and the child walks erect in its renewed strength.

The best evidence I can offer of the truth of all this, is the fact that two-thirds of the children attending my special junior class were sent to me by the medical advisers of their families.

How often do parents bring to us girls and boys, especially the former, more or less deformed, the victims of either ignorance or carelessness. It is "the old tale"—they saw nothing until eight, nine or twelve months ago, as the case may be, and yet, on close questioning, we invariably found that the deformity has been creeping insidiously on for years, and was in some cases advanced too far for permanent benefit. It is these sad cases that make us feel so earnest in the cause of physical education. The welfare of the rising generation interests me warmly. I have felt my way most cautiously in dealing with children, and the result is that I would have the little ones begin at an age as early as possible; it is not a matter of years, but ability to comprehend—some children of four years of age progress faster than those of seven or eight. By giving them such movements as do not unduly strain their tender frames, they are gradually worked up to a point of development and elasticity that keeps far off the dread and subtle enemy—deformity, and

not only so, but by particular attention being paid to securing a full inflation of the lungs in breathing, which can only be secured by a correct position of the body, another dread—that of consumption—is effectually held at bay.

It may appear unnecessary to enlarge so much on this subject, but I have felt it a duty to endeavour to arouse parents from the apathy which they display upon a matter of such vital importance to their children. Some, I am sorry to say, are prevented from sending their children by the small fee required, and yet these same people would, if their child's life was visibly in peril, spend a fortune to save it; but from most unaccountable blindness they plead the numerous demands upon their purse for various educational items, as a reason why their children "cannot take gymnastics," as they phrase it. To such I would say that in no possible way could they better invest a few dollars yearly, than in securing the present and future physical welfare of their children.

To those parents who have never witnessed these exercises, I extend an invitation to visit my classes, which commence in October. And in conclusion I would say that it is no mere matter of business which urges me to impress upon the public the claims of physical education; but a deep conviction which determined me to devote my life to developing it into as complete a system as possible, and to seek for my reward in witnessing a restoration of that standard of physical excellence, which the exigencies of modern civilization have tended so much to deteriorate.

———o———

NOTES ON HOUSEHOLD SANITARY MATTERS.

BY JAS. H. SPRINGLE, ARCHITECT AND CIVIL ENGINEER.

(*Continued from page 49.*)

NOTE 2.

In the August number of the HEALTH JOURNAL I explained the nature of the risks incurred by the introduction of water-closets into dwellings, and the dangers arising from the disgraceful and unworkmanlike manner in which such works are most

frequently done in dwelling houses, and, in view of the fact that there is not, nor ever has been, any municipal regulation whatever respecting the drainage of houses, nor any supervision attempted in a matter affecting so seriously the health of the citizens, it is not surprising that many amongst us advocate the entire banishment of water-closets from all dwelling houses. Far better, they say, to return to the old plan of outside privies, with all their inconveniences, than to bring the common sewer abominations into the very midst of our sleeping apartments. To all this we have to answer, that, if the plumbers and other artificers, to whom the drainage of dwelling houses is entrusted, are to be allowed to go on without control with these important works in the same reckless manner as hitherto, it *would be* much better to abandon water-closets and return to the old order of things, for the health of the citizens could not help being improved by the change.

On the other hand, in cities that have a plentiful supply of water (and we have a plentiful supply), a properly constructed water-closet, placed in a dwelling under the personal supervision of a competent inspector, and not allowed to be used until said inspector has satisfied himself that every part of the work is complete and perfect, from the ventilating shaft on the roof to the junction with the street sewer, is unquestionably far superior to all other contrivances for the removal of excreta. Earth closets, ash closets, and the whole tribe of similar inventions, are not to be compared with it for cleanliness, comfort and efficiency. No other system is so admirably adapted to the exigencies of our Canadian climate. Secured from our intense frosts, it removes excreta by water carriage to the common sewer by the mere pulling a handle or turning a tap; whereas, the dry earth system, the tub system, or the ash closet, are none of them self-acting, but require manual labor to replace the receptacles and remove their contents. Nor is there any advantage claimed for these portable contrivances which cannot be better obtained by the best form of water-tight privy vault, built of brick in cement, and arranged to be emptied every winter.

I have alluded incidentally to privy vaults because they will always be largely used in Montreal as well as water closets, and because outside water-closets, in a climate like ours, are out of

the question. As for the sacrifice of valuable manure which is supposed to be made by running the contents of our sewers into the river, it is quite certain that the sewage of Montreal is far too much diluted with water to admit of its ever being utilized for agricultural purposes; while, from a sanitary point of view, no inconvenience or danger need be apprehended from the diffusion of the city sewage in the passing volume of such a mighty river as the St. Lawrence, for if we take the daily discharge of the sewers into the river to be ten millions of gallons, the river itself, in the same period of time, passes no less than two hundred and seventy thousand millions of gallons. However destitute of value, therefore, the *sewage* of Montreal may be, it is highly probable that if the soil pits of all privies throughout the city were constructed as they are in the city of Paris, the contents thereof might, as in that city, be made a source of revenue, instead of being, as it is here, a scandalous and costly nuisance.

P. S.—In the August number I recommended water for the absorption of effluvia in bath-rooms, &c. This was only intended to apply to houses which had no ventilators to the soil pipes, and in the second paragraph the printer has converted joints into points.

(To be continued.)

———o———

The Editor begs to state that he will be happy to receive any communications on the following subjects, and others allied to Hygiene: Water supply, drainage, ventilation, building, adulteration of food, &c., warming, clothing, education, manufactories and their influences on health, scavenging; also, Public Health Reports from Canada, United States, or any part of the world.

PUBLIC HEALTH MAGAZINE being a monthly periodical of progress, advocating neither party interests nor influences by prejudice, its columns are thrown open to all who desire the advancement of sanitary knowledge. Contributors, in sending papers, will please mark the places they especially wish our attention drawn.

Sanitary Reports.

THE VESTRY OF ST. MARY ABBOTT'S, KENSINGTON.

We have just received a report issued by the "Vestry of the Parish of St Mary Abbott's, Kensington, W. London," on the spread of Scarlet Fever, with instructions for preventing the spread of infectious or contagious diseases, such as scarlet fever, small-pox, &c. We reprint them, although we gave our readers a synopsis of the like in our August number. Our Board of Health should distribute copies gratuitously to our fellow-citizens of some such suggestions, not forgetting a strong one on re-vaccination.

1.—Separate the sick person from the rest of the family directly illness appears, placing him, if possible, in a room at the top of the house, and taking care to remove carpets, curtains, and all unnecessary articles of furniture and clothing therefrom.

2.—Admit fresh air by opening the upper sash of the window. The fire place should be kept open, and a fire lighted if the weather permits. Fresh air should be freely admitted through the whole house by means of open windows and doors. The more air th through the house, the less likely is the disease to spread.

3.—Hang up a sheet outside the door of the sick room, and keep it wet with a mixture made either with a quarter of a pint of carbolic acid (No. 4), or a pound of chloride of l me, and a gallon of water. The floor should be well sprinkled frequently with either of the same disinfectants, and cloths, wetted with either, hung up in the room.

4.—Everything that passes from the sick person should be received into vessels containing half a pint of a solution of green copperas, made by dissolving one pound of copperas in a gallon of water. A like quantity of the solution of copperas should be added to the discharges before emptying them into the closet.

5.—Every sink, closet or privy should have a quantity of one of he above-named disinfectants poured into it daily, and the greatest care should be taken to prevent the contamination of drinking water by any discharges from the sick person.

6.—All cups, glasses, spoons, &c., used by the sick person should be first washed in the above-named solution of carbolic

acid, and afterwards in hot water, before being used by any other person.

7.—No article of food should be allowed to remain in the sick room; and no food or drink that the sick person has tasted, or that has been in the sick room, should be given to anyone else.

8.—All bed and body linen, as soon as removed from the sick person, and before being taken from the room, should be first put into a solution of carbolic acid of the above-mentioned strength, remaining therein for at least an hour, and afterwards boiled in water.

9.—Instead of handkerchiefs, small pieces of rag should be used, and these, when soiled, should be immediately burnt.

10.—Persons attending on the sick should not wear woollen garments, as they are likely to retain infectious poison; dresses of cotton, or of some washable material, should be worn. Nurses should always wash their hands immediately after attending to the sick person, using carbolic acid soap instead of ordinary soap.

11.—It is of the utmost importance that the sick room be not frequented by others than those in immediate attendance on the sick, as the clothing of visitors is very liable to carry away infection.

12.—The scales and dusty powder which peel from the skin in scarlet fever, and the crusts in small-pox, being highly infectious, their escape should be prevented by smearing the body of the sick person all over every day with camphorated oil. This and the after use of warm baths and carbolic acid soap are most essential. The sick person must not be allowed to mix with the rest of the family until the peeling has *entirely ceased*, and the skin is perfectly smooth; clothes used during the time of illness, or in any way exposed to infection, *must not be worn again until they have been properly disinfected.*

13.—When the sickness has terminated, the sick room and its contents should be disinfected and cleansed. This should be done in the following manner: Spread out and hang upon lines all articles of clothing and bedding; well close the fire place, windows and all openings; then take a quarter to half a pound of brimstone, broken into small pieces; put them into an iron dish, supported over a pail of water, and set fire to the brimstone, by putting some live coals upon it. Close the door, and stop all crevices, and allow the room to remain shut up for twenty-four hours. The room should then be freely ventilated, by opening the door and windows, the ceiling should be whitewashed, the paper stripped from the walls and burnt, and the furniture, and all wood and painted work be well washed with soap and water containing a little chloride of lime. Beds, mattresses, and articles which cannot well be washed, should, if possible, be submitted to the action of heat in a disinfecting chamber. *Until this pro-*

cess of disinfection is effectually carried out, the room cannot be safely occupied.

14.—Children should not be allowed to attend school from a house in which there is infectious disease, as, although not ill themselves, they are very likely to carry the infection, and so spread the disease. No child should be allowed to re-enter a school without a certificate from the medical attendant, stating that he can do so without any danger of infecting other children.

15.—In case of death, the body should not be removed from the room, except for burial, unless taken to a mortuary, nor should any article be taken from it until disinfected as before directed in Rule No. 13. The body should be put into a coffin as soon as possible with a pound or two of carbolic powder. The coffin should be fastened down, and the body buried without any delay.

T. ORME DUDFIELD, M. D.,
Medical Officer of Health.

HEALTH OF JERUSALEM.

For more than a year small-pox has been exceedingly prevalent in Jerusalem, Bethlehem, Jaffa, and other towns in Palestine. There are, unfortunately, many native customs and prejudices which militate against a cessation of the epidemic. In the first place vaccination is almost entirely neglected. There is no attempt to isolate small-pox patients, while the sufferers are carefully guarded against the access of fresh air, by which means the atmosphere in the apartments and the clothes of the persons therein become saturated with the poison—thus greatly facilitating the communication of the disease to others. Again, the prejudice against adopting medical treatment for small-pox is almost universal, while the general insanitary condition of the towns and villages is notorious. On the whole the mortality does not seem as great as might have been expected, the disease not having been of a virulent type. But numerous deaths have occurred, and a great many eyes have been destroyed for want of efficient treatment. With the season of early fruits, which are frequently eaten in an unripe state, diarrhœa and cholera have become common in Jerusalem. Some of the cases have been of great severity, accompanied by cold skin and tongue, husky voice, a bluish tinge of countenance, feeble pulse, and cramps of the legs. Desultory attempts at improving the sanitary condition of Jerusalem continue to be made, and the steady influx of Europeans cannot but have a beneficial influence on the health and prosperity of the Holy City.—*The Lancet.*

Correspondence.

To the Editor Public Health Magazine:

Dear Sir,—Allow me a few lines in your journal to call attention to the gross *adulteration of soap*, as a matter affecting the public health and comfort. Some years ago, when living in a boarding-house, my washerwoman occasionally brought home my heavy flannels in a condition I could not for some time understand. They seemed to be damp from their stiffness and heavy odour; but no process of drying improved them. Since then I have heard housekeepers complain of the stiff, sticky state, in which their blankets were returned from the wash. Almost every one has had occasion to observe the sticky condition of his hands after using some kinds of soap in washing. The unfortunate wight who, in bathing, attempts to cleanse himself with any ordinary bar of brown soap will find himself at the end of the process so far resembling a fisher's smack in that he is well *pitched*, at least without, and instead of accomplishing the orthodox result of opening the pores he has most effectually closed them. All this is due to the incredible quantities of rosin, light or dark colored, according to the color of the manufactured article, which is added to nearly all the cheaper varieties of yellow and brown soaps, while to the white soaps some kind of dense white powder is added to give them volume and weight. By these adulterations the poor ignorant hardworking washerwoman is cheated out of more or less than half of the genuine compound she thinks to buy in good faith, besides, perhaps, having to do her work over again and losing her reputation as an *artiste* into the bargain. It is bad enough to be filled up and dirtied with city dust, and have to attempt to wash it off with the compound distributed from the city water works, and already graphically described in your columns, without having to be rosined like a fiddlestring or powdered with suspicious mixtures. To obtain pure soap at a reasonable price, each family will be compelled to retrograde to the primitive fashion of making it themselves. Trusting you will pardon me for taking up so much of your valuable space with this matter, I am, &c.,

Sapo.

To the Editor of Public Health Magazine:

DEAR SIR, —Institutions of great importance to classes and communities often begin quietly and unperceived, but when the conditions and materials for their growth are continuously present, they increase in strength and usefulness like the acorn into the toppling and giant oak. Such has been the manner of growth of many of our institutions for the aid of the sick and poor and friendless. More particularly would we advert to the growth in Scotland of a series of seaside homes for these classes, that, having found its origin in the love of one or two kind hearts in that land, increased and prospered in the genial light and warmth of charity, until these homes have become an honored and powerful agent of beneficence.

A young shoot from that parent stem seems to have floated across the Atlantic and last summer quietly taken root at Murray Bay, on the shores of the St. Lawrence. The acknowledged efficacy of a residence at the seaside as a means for the restoration of health and strength and the more general application of the golden rule have been the soil and atmosphere in which this new plant has thriven and, let us hope, shall continue to thrive so long as any may require the shade or shelter of its hospitable branches.

While the whole mountain and province have been in fruitless labor to produce a Convalescent Home of magnificent proportions at Montreal, a single kind heart with single faith rented a cottage at Murray Bay, and, gathering in some poor weak and sickly women and children from this city and elsewhere, commenced the first Convalescent Home in Canada. The means for its support were more than supplied by admiring witnesses of the effort.

Returning spring showed that the young institution at Murray Bay had not been killed by the frosts of apparently inactive winter months, for on visiting the seaside in the full height of summer we find that the Home has grown to more than twice its former size, and has succeeded twice in putting forth a branch, while its vigor and beauty show how deeply it has struck its own roots into the hearts and pockets of the benevolent and intelligent public.

While it is hoped that those who approve of this effort will

voluntarily send in liberal contributions for its support it is but just to say that those more immediately connected with it have made untiring effort to do the most good with offerings sent. An advantageous lease of suitable houses has been secured and arrangements have been made for reduced fare to Murray Bay and return, while Miss Hervey undertakes the personal supervision of the internal and general management of the institution.

Many of limited means will hail with joy this new chance of regaining health never before dreamt of, the wealthy will have the opportunity of conferring an unwonted boon on some invalid *protége*, and medical men may reasonably recommend to many of the working classes a remedy often formerly desired, but never before possible to use.

I am, sir,

JOHN BELL, M. D.,

1 Belmont Street.

———o———

To the Editor of Public Health Magazine.

DEAR SIR—I was called to see a patient at the corner of Dorchester and Aqueduct streets the other day, suffering from Glossitis, general malaise, sore throat, and other symptoms indicating a very unsanitary state of the atmosphere, and, intimating my suspicions, I was shown into the cellar, when, to my astonishment, I beheld the whole place in a state of inundation, blue mould saturating the floor above, and on examination I saw that it had actually caused fungus growth to ascend through the flooring into the bedroom. Would you please bring this matter before the public, as I am certain this is not an isolated case, but I have no doubt many of our older (and some new, if the truth were known) houses are equally as unhealthy, and should be looked after by our health officers. The unfortunate tenant has repeatedly reported the fact to the landlord, but he will do nothing. I have written to the Health Office as well as to you, sir, in hopes that the city authorities will insist upon something being done by the landlord, or that they will do what is necessary and send in the bill to him.

I am, Sir, yours,

M. D.

Reviews.

"ADVICE TO A WIFE," on the Management of her own Health, &c., &c. By Pye Henry Chavasse, Fellow of the Royal College of Surgeons.

We are indebted to Mr. H. F. Jackson, of 931 St. Catherine street, for the above work. It is a book of 246 pages, every one of which is filled with very necessary and important advice to a wife. It is divided into four subjects, each of the utmost consequence in the economy of female health, with an introductory chapter on generalities, the whole essential to a young married woman. Mr. Chavasse, in his own peculiarly interesting manner, treats the subject very exhaustively. He says: "I know I am treading on tender ground, but my duty as a medical man, and as a faithful chronicler of these matters, obliges me to speak out plainly, without fear or without favor." The object he seems to have constantly in view, is "the health of wives." He most determinedly opposes the present mode of commencing married life. He says: "The present fashionable system of spending the first few months of married life in a round of visiting, of late hours, and in close and heated rooms, calls loudly for a change. How many valuable lives have been sacrificed to such a custom! How many mishaps, &c., &c., have resulted therefrom? Night after night, gas, crowded rooms, and excitement, are her portion. Fashion is often-times but another name for the suicidal undermining of health and happiness." His advice to a young married lady to take regular and systematic *out-door exercise* is admirable. We thoroughly endorse his views. There is too much close confinement either at home or at parties, &c. He advocates free ventilation to keep her house healthy and sweet and to keep off disease.

Thorough bathing is another point he insists strongly upon, and in five lengthy paragraphs he enters most minutely into the subject of cold or tepid water ablutions, according to the seasons. If she attends to this every morning it will most assuredly strengthen her.

With regard to Diet, he advises, above all other meals, to eat a hearty breakfast; it is the first meal after a long fast, the system requires it. "Suppers," he says, "are an abomination," and he is not far wrong. He gives minute and valuable instruction as to diet, which should be read by men as well as young wives. "But," he adds, "be temperate in all things." Wine he only advises if weakness is great, and then only to be taken if a medical man orders it. He says, "Gin-drinking nursing mothers, it is well known, have usually puny children; indeed the mother drinking the gin is only another way of giving gin to a babe—an indirect, instead of a direct route, both leading to the same terminus—the grave." He continues by quoting fr m Dr. Parkes, "If alcohol were unknown, half the sin and a large part of the poverty and unhappiness in the world would disappear;" also he agrees with Shakespeare when he said, "O thou invisible spirit of wine, if thou hast no name to be known by, let us call thee Devil."

In speaking of sleep he advises early retirement and consequent early rising. Young wives should endeavor to keep themselves always in bloom, which he says cannot be done unless they have the full benefit of their "beauty sleep," for "one hour's sleep before midnight is worth two after." He asserts, and with truth, that "sleep is of more consequence to the human economy than food." All these important points are touched upon and handled with care. They will all conduce to make a happy home. The wife will be good-tempered and happy, and always endeavoring to cement her husband's affection more closely to her as did Peggy in Allan Ramsay's "Gentle Shepherd:"

"Then I'll employ wi' pleasure a' my art
To keep him cheerfu', an' secure his heart.
At e'en, when he comes weary frae the hill,
I'll hae a' things made ready to his will.
In winter, when he toils thro' wind and rain,
A bleezing ingle an' a clean hearthstane;
An' soon as he flings by his plaid an' staff,
The seething pots be ready to take aff;
Clean hag-a-bag I'll spread upon his board,
An' serve him wi' the best we can afford;
Good humor and white bigonets shall be
Guards to my face to keep his love for me."

It not only treats of all the private and necessary management of a young wife, but even gives good sound advice in the culinary department. To sum up he advises as the best physic—"early rising, thorough morning ablution, good substantial plain food, great moderation in the use of stimulants; a cool and well ventilated house, especially bedroom; an abundance of fresh air, exercise, and occupation, a cheerful, contented, happy spirit, and early going to bed. All these are nature's remedies, and are far superior and are far more agreeable than any others to be found in the materia medica." Attention to these will, in the words of Wordsworth, make a perfect woman.

"A being breathing thoughtful breath—
A traveller betwixt life and death;
The reason firm, the temperate will,
Endurance, foresight, strength, and skill;
A perfect woman, nobly plann'd,
To warn, to comfort, and command;
And yet, a spirit still, and bright,
With something of an angel light!"

PROTESTANT INFANTS' HOME.

We have just received the fifth annual report of the Protestant Infants' Home. The Home seems to be doing a very creditable work, thanks to the energetic ladies who have in hand the guidance of its affairs. Their finances are in an excellent condition; they have on hand $3,000 for the expenses of the coming year. Besides, there is a fund, already subscribed, of $6,000 towards a new building. We commend this charity to the liberality of our citizens, a new building being very much needed. We were struck with a remark in Dr. Bell's report, which we will copy, showing the unsanitary state of the present *old house:*

"The old house in which the Home is yet unfortunately placed, is quite unfit for the purpose. No means are provided for ventilation, and the decaying organic matter, necessarily accumulated in cracks and crannies throughout the old fashioned building, soon pollutes the atmosphere of the rooms when the chilly and cold weather of the greater part of the year compels the closure of the only apertures for ventilation. The air, thus rendered

impure, injures the children not only through the lungs, but also by the infection of the food constantly exposed to myriads of germs which at once cause fermentation and decay, thus largely adding to the cause of the gastric and intestinal disorders that are the bane of the institution, as they are the chief factors in the marasmus or debility, and the death of nearly three-fourths of the whole number of infants dying in the present house.

"Medical advice cannot be better given than in urging the placing of the Home in a more suitable building, surrounded by healthful grounds for summer use; and I have been sadly convinced that medical treatment of any kind can prove of but little avail when opposed to such overwelming forces as at present operate against us. After what experience has taught us, it needs no prophet to interpret the meaning of 42 deaths from infantile debility out of a total of 72; 30 of whom died under the age of one month. A properly ventilated building will remedy this to a very great extent."

We also notice the addition of three medical gentlemen to the staff, Drs. Ross, Wm. Osler and Gardner. This will give Dr. Bell much help in his duties, and we must congratulate the institution upon securing the services of such an able staff.

ANNUAL CALENDAR OF McGILL COLLEGE AND UNIVERSITY.

The Calendar of the forty-third session of this University, commencing from September, 1875, is before us.

There have been several changes in the staff of the Medical Faculty, owing to the retirement of Dr. Campbell from the chair of Surgery, so eminently filled by this veteran for forty years; as also of Dr. Drake, whose health prevented him from continuing the duties of the chair of the Institutes of Medicine. Both these gentlemen were honored, on their retirement, with Emeritus Professorships; Dr. Fenwick taking the Chair of Theory and Practice of Surgery; Dr. Reddick, Clinical Surgery; Dr. Gardner, Medical jurisprudence. The only really new and important change as to the chairs themselves has been the erecting of the Lectureship of Hygiene into a Chair, which Dr. Robt. T. Godfrey, late Professor of Surgery in Bishop's College, Lennoxville, has

received. We can most heartily congratulate the student of medicine on this event, because it is most sincerely to be hoped, and reasonably expected, that the object of the Faculty in the creation of the Chair is to make the subject no more an optional summer course, attended by few, if any, but one to be delivered at a season when a full attendance during one of the matriculation years may be put in by each student, and the course made so full and instructive as to become thoroughly popular and appreciated. The fact that the calendar is silent, both as to the time when the lectures shall be delivered, or even the fees to be paid for attendance, looks very like the old hum-drum system that prevailed in our own undergraduate days. It is certain that the community expect a well-qualified medical man to be some authority on the subject and practice of Hygiene, and as it is a daily topic of inquiry, and an all-important matter in town and country, let our deservedly popular University sustain its character in this branch as in all others. We shall be well pleased to draw attention to any instructive and popular course that may be in preparation, and we are sorry that the newly-appointed Professor had not seen to some prominence being given as to the course, with its details of illustration, models and applianecs for experiments, so as to enlist the interest of the pupil. We must also congratulate the University upon obtaining the services of Dr. Osler (who has made a specialty of Physiology and Pathology) for the Chair made vacant by the resignation of Dr. Drake, on account of ill health. Dr. Shepherd, son of Capt. Shepherd, was named as Demonstrator of Anatomy, rendered vacant by the appointment of Dr. Roddick to the Professorship of Clinical Surgery.

We must not fail to notice the laudable regulations adopted for the securing of suitable boarding houses in healthy localities, under the supervision of the authorities of the University, and if we might suggest a means of securing such residences, and procuring the accommodation of well ventilated rooms and the modern appliances of baths, &c.; let the Governors of the University add to the ordinary boarding price, payable by the student to the landlord, a monthly additional gratuity to secure the sanitary comforts that will add to the health of the student and invigorate him for his severe mental exertions.

We truly mourn the omission from the list of Governors of the well-known benevolent co-founder, the late William Molson, Esq., whose tablet on the hall that bears his name records his memory as the tomb of the late Honorable. James McGill, recently removed to the front of the centre building declares also the record of a grateful University.

PUBLIC HEALTH MAGAZINE.

SEPTEMBER, 1875.

THE KINDERGARTEN, OR CHILDREN'S GARDEN.

"Mutter ist der Genius der ersten Kindheit."

Frœbel, born in 1782, was a pupil of Pestalozzi, and left us the legacy of the Kindergarten. As its name implies, it is a children's garden. Tuition is given not by book-learning, but by pleasant associations and agreeable instruction, in the open air, or indoors, made fresh and pleasant by the cultivation of flowers, &c. Wordsworth says, "The child is father to the man." Man receives the heritage of vigor or debility, of health or illness, which his childhood has bequeathed to him; and, therefore, we cannot be too careful to watch over this decisive period of life. In this respect, a day of childhood is worth a month of adolescence in its influence upon his future health.

Montague says, that "those who separate the education of the mind from that of the body do a great wrong."

M. Dupanloup, in his celebrated work, published thirteen years ago, compared "education to a skilful gardener, who places the plant confided to him in a good soil, sprinkles it with water, surrounds it with favorable conditions, nourishes it and shelters it with care, that it may produce its fruit or flowers in due season," and, as Education is the handmaid who undertakes the grave work of transforming the child into the man, it must be considered under its physical as well as its mental conditions.

Montague again says that "Health is the factor which gives value to all the zeroes of education." Thus we see the great value these truly philosophic men attached to the physical education at the same time that the mental endowments were being developed in the tender plant. Hufeland has laid down the fol-

lowing rules, which ought to be known by heart by every parent and by every teacher:—

1. The first object to be kept in view is "to promote the development of the organs, especially those upon which the duration of the physical and moral life depend, to exercise them properly, and to make them as perfect as possible." And what are they? They are the stomach, the heart, the vascular and nervous system.

Healthy lungs depend on the use of pure air, aided by speaking, singing and running. A good stomach is acquired by putting nothing into it but wholesome food, nourishing, and easy of digestion, neither highly spiced nor stimulating.

The health of the skin is maintained by cleanliness, frequent washing, baths, and the enjoyment of fresh air in a moderate temperature, and lastly by exercise.

2. Before we try to develop the physical and moral faculties we must be assured of the general healthy condition of the body. This is the basis of all education, and indeed of life itself.

3. Baths, pure air and exercise, are three objects never to be lost sight of, and they are the best we can employ.

4. The clothing should be loose, clean, and free from pressure of any kind, and be suited to the climate.

5. Nourish the vital powers.

Habitual exercise in the open air is the best way to do so.

Fortify the *vis medicatrix naturæ* and you will avoid the necessity of applying to the doctor, for if you go to him for every trifle you will lose the habit of self-reliance.

6. From the beginning, moderation must be strictly observed as to diet, both in quality and the way in which it is eaten; this habit will become a "law for the future" and make life longer and more pleasant.

Frœbel was well aware of all these invaluable axioms when he proposed to educate the young mind to habits of observation by health and necessary exercise in a "Kindergarten." The New York *Tribune*, in a late number, in speaking of a Kindergarten in Boston, says:—

"I wish I could make a picture for you of this room and the little people in it. There are pictures on the walls, such as Cheney's crayon of the Sistine Madonna; on brackets are grace-

ful busts; bouquets are in pretty vases; but, above all, there is a wealth of green things growing, potted plants in large variety and in a very thrifty condition. This idea of growing plants, you must understand, is one of Frœbel's essentials. It is good for the body, he thinks, to tend them; it is good for the soul to love and watch them. Each child has one or more. His plant is as much his own as his cap or his mittens. He waters it—he picks off the dead leaves—he turns it toward the sun—he is proud of it beyond measure. The children who are present each day are allowed, as a favor, to tend the plants of the absent; and they do this faithfully and with great delight.

"Imagine, in this picture-adorned, blossoming room, a dozen little tots, more or less—girls and boys being about equally represented. Fancy them seated in little chairs, so as not to tire their tiny legs, before long, low tables, just about as high as the seat of a grown-up person's chair, made of light, polished wood, divided by black lines into square inches, by which the eyes of the children presently become accustomed to measure objects. Here they sit for half an hour, busy, perhaps at building with blocks, perhaps at modelling in clay, perhaps at folding paper, or drawing, or embroidering on cards; for no John or Richard who has been trained in a kindergarten will be necessarily dependent on his wife's caprices as regards his buttons. This work goes on for half an hour, and then there is half an hour of play. But, first, I must tell you about the 'occupation,' as they call it.

"Building with blocks sounds like mere fun, doesn't it? but, really, it exercises these little minds very actively. They were given, when I was there, a cube, which in Frœbel's list of 'Gifts' is numbered the fourth. It is composed of eight wooden oblongs, two inches in length, an inch wide, and half an inch thick. These little oblongs are shaped like bricks, you perceive, and with them the children are instructed to build. Each one must have his own idea, and plenty of room is thus given for invention. One built a bridge, with steps leading up to it, suggested by the one in the Public Garden. Another made a summer-house and explained his notion of its construction. Another made what he called an engine, with the gate shut when the bell rings, and the sign-board over it. He had a spare oblong, and he set it up on end and said it was the man to tend the gate. Another little fel

low, full of fun and brightness, made a school-house and set a solitary oblong in front of the door. 'Who is that?' asked Miss Garland. 'That is Elise, coming all alone, as she did this morning,' he said, laughing. Elise was a small maiden, with bright eyes and many ruffles, who was usually escorted by a nurse, but who had surprised them that morning, by coming, with the utmost dignity, quite alone.

"After this half-hour's 'occupation' was over, there came half an hour of play. The plays are set to music, and are the most admirable system of gymnastics imaginable. Let no one aspire to teach a kindergarten who cannot sing, at least tolerably, for amusement is all accompanied by singing. They play mostly ring plays, so contrived as thoroughly to exercise the muscles, to teach grace of motion, and to prepare the little folks for future dancing. After half an hour's play comes another 'occupation.' Perhaps it is drawing. For this purpose they have peculiar slates, grooved into little squares a quarter of an inch each way. This aids them to be accurate in their lines. As they go on the slates are changed, the grooves becoming less and less deep, until at last they can draw as accurately on plain slates as they could at first on the grooved ones. Or perhaps they weave paper, choosing their own combinations of color. Or they model; and one little boy had shaped out of clay a surprisingly good turtle. Their leaf impressions in clay were extremely delicate and pretty. All the time their attention is alert; their habits of close and accurate observation are forming, and they are so interested in what is going on as to know no weariness. They wait on themselves, and put away all their implements as soon as they have finished using them, with a careful orderliness which is in itself an excellent training for the future man or woman. They learn to be independent and self-helpful.

"Dr. Budgett says he paid a visit to a kindergarten, at Paris, containing sixty children, in two classes, from three years to seven or eight, all girls. It was astonishing to see how happy the little ones appeared in their work. I there saw them solve many of the elements of geometry and prove they knew them by describing the curve, the angle, the plane, and the sphere, as they appeared in a line of stenography; and all this they had learn without a book and by amusement only.

"A child of seven years of age read a stenographical phrase in natural history, though she could not write a dozen words."

We might add much more on this interesting and all important question of Hygiene of Schools and Kindergartens, but space will not permit. Suffice it to say that it is a system much to be encouraged, giving, as it does, such opportunities for mental development, *not* at the expense of physical energies, like the ordinary systems for the young.

———o———

VACCINO-PHOBIA.

The clamorous assertions of the anti-vaccinationist remind us of the opposition which was raised when Dr. Jenner first made his discovery, and sketches were published by his opponents, showing, amongst other dire effects of the introduction of the vaccine virus into the human system, people with cows' horns springing out of their foreheads; a style of illustration which might be aptly imitated by drawing pictures of the opponents of vaccination with asses' ears naturally growing from the sides of *their* heads.

On investigating this frothy, noisy opposition of what do we find it to consist? Of a number of men and women, for the most part illiterate, led by some few individuals, whose education has only sufficed to develop their weak mental points. The most active promoters of the agitation against vaccination are the proprietors of certain quack medicines. As to the class of speech of the vaccinophobists one knows not which to wonder at most, the folly of the speakers, or the fanaticism of the hearers of such rubbish. In every sentence uttered, "suppressio veri" and "dictio falsi" struggle for supremacy, and it is hard to say which has the upper hand.

It is gratifying to turn from the incoherent ravings of the anti-vaccination party to the mass of evidence which has been produced in proof of the value conferred upon mankind by Jenner's discovery. It is almost impossible to realize any commensurate idea of the ravages of small-pox previous to the introduction of vaccination; but some notion may be conveyed by the fact that during the eighteenth century 400,000 persons died

annually in Europe of this loathsome disease. In Germany, before the protective practice of vaccination was resorted to, out of every 1,000 deaths, sixty-six were from small-pox, now only seven per 1,000 are due to this affection. The Blue Book upon this subject, compiled by Mr. John Simon, F.R.S., shows that the mortality from small-pox in Copenhagan is now only an eleventh part of what it was before the introduction of vaccination; in Sweden, it is but a little over a thirteenth; in Berlin, as well as in Austria, only a twentieth; while in Westphalia, the fatality from small-pox is merely a twenty-fifth part of what it was when vaccination was not practiced. In England, where vaccination has been less stringently enforced than in many European countries, it has been shown that out of every 1,000 deaths in the half-century, from the year 1750 to 1800, there were ninety-six deaths from small-pox; and out of every 1,000 deaths in the half-century, from 1800 to 1850, there were only thirty-five deaths from the same cause.

But we must not weary our readers by the repetition of facts with which many of them are acquainted. We cannot, however, refrain from reference to one of a decidedly marked character. In Malta, from 1818 to 1838, inclusive, the aggregate number of the British troops stationed on that island being 40,826, the total mortality 665, only TWO deaths occurred from small-pox amongst the soldiers. Yet, during that period, Malta was visited by two very severe epidemics of small-pox, in 1830 and again in 1838, which destroyed no less than 1,169 of the native population, who, unlike the British soldiers, did not enjoy the protection of vaccination.

In English epidemics, the percentage of fatal cases out of those who are attacked of small-pox is from 5 to 10 per cent. amongst those who have been previously vaccinated, while it ranges as high as 50 to 60 per cent. in those who have not been similarly protected. In other words, the chances of recovery are ten to one in favor of the patient with small-pox who has been vaccinated, and the probability is, in the case of one who has not been vaccinated, that he will die.

Will either fools or fanatics benefit by the salutary lessons conveyed by such facts as these? We fear not. But, at any rate, they ought to show intelligent people the blessings deriva-

ble from vaccination and strengthen the hands of the authorities in dealing with the obstinate, and men who openly incite to a breach of the laws (as well as endanger the health of the community) by delivering to ignorant audiences addresses full of untruthful statements amid the rapturous shouts of the poor deluded hearers.

Most of these evidences are from *Public Health* (London), but they are so applicable to our East End fellow-citizens and anti-vaccinationists generally, that we thought it well to publish them.

PHYSICAL EDUCATION.

We beg to draw the attention of our readers to Mr. Barnjum's very excellent paper on the Physical Education of the Young in the public schools of this country, and we quite agree with him. We have frequently urged that more might be done in this direction, and with very great advantage to the health and physique of the youth of this country. Too much attention is given to the mental, and too little to the physical education of all classes, and the consequence is that many of them are stunted in growth, jaded in aspect, and very vulnerable to the exciting causes of constitutional disease. Sweden, Prussia, Russia, Italy and Saxony have all acknowledged the necessity of such a training, and we should be glad to add Canada.

SMALL-POX.—From research we find that the loathsome disease, "small-pox," has been in existence for more than a thousand years B. C., it having been epidemic in India, China, and thereabout, from time immemorial. But it was quite unknown in Europe before the beginning of the eighth or end of the seventh century. The Greek and Roman physicians do not seem to have been aware of its existence even. Would to Heaven we were as ignorant of it here in Montreal!

Miscellaneous Selections.

TEETOTALISM AT THE ARCTIC.

Among the points of interest connected with the Arctic Expedition there is one of minor importance to which some little attention and observation will nevertheless be directed by medical officers. We allude to the dietetic value and physiological effects of alcohol in preserving the health and strength of the sailors under the exceptional circumstances in which they will find themselves. The crews of the vessels taking part in the expedition are exceedingly fine men in every way, capable, one would think, of encountering any hardships, and of performing any work that it is within human power to accomplish; and, supposing their constitutional vigor to remain unimpaired, and their supplies of food and clothing to be adequate to their requirements, we are quite ready to believe that the consumption of alcoholic spirits might be found unnecessary or even injurious in the case of those who happened to be teetotalers. And Sir Wilfrid Lawson and the friends of temperance will doubtless be glad to learn that there are several teetotalers among the sailors. One of the ice quarter-masters is stated to have made several voyages to the Polar regions without ever having broken his pledge of total abstinence. The medical officers of the expedition intend noting any difference in health or stamina between those who are total abstainers and those who consume their regulated allowance of grog. It will be remembered that the military forces in the Red River expedition under Sir Garnet Wolseley substituted cold tea for spirits, as was generally believed, with much advantage, while some difference of opinion existed among those who joined the late expedition to Coomassie in regard to the utility of a spirit ration. As an officer remarked, "in the one case they seemed to live on the climate, and in the other the climate lived on them." Many, perhaps the majority, held that a regulated and small allowance of rum at the end of the day, or at the conclusion of a long and fatiguing march, had

a beneficial effect on the system, and considered that it tended, when consumed with a meal, to stimulate the appetite and remove the sense of depression and fatigue more quickly and effectively than did the same amount of food without the rum. Apart from variableness of climate, the nature of the duties and the amount and character of the food obtainable, we suspect that differences of habit, constitution, and temperament will be found to account for the differences that exist in this respect. A young and vigorous fellow, gifted with an appetite for anything, provided he can only get enough to satisfy his wants, who has never been accustomed to alcoholic stimulants, would be injured by their use unless under very exceptional circumstances. But there are others outwardly as strong and healthy-looking, and endowed with considerable powers of endurance, but with a more impressionable nervous system, who both feel and apparently are the better for a moderate amount of alcohol. The practice of one can hardly be a law to the other. After all, however, very much must necessarily turn upon the amount and nature of the duty done, and the readiness with which good and suitable food can be had.—*The Lancet.*

———o———

SEWAGE UTILIZATION AT CROYDON.

On Saturday, the 12th inst., Dr. Alfred Carpenter entertained most hospitably, at Beddington, near Waddon, where the Croydon sewage farm is situated, a very large party of guests, comprising most of the distinguished members of our own and other professions specially interested in and qualified to judge as to the disposal and utilization of sewage. Dr. Carpenter records in an explanatory notice given to each visitor on the occasion that the objects for which inspection was invited were to show (1) that a sewage farm is not a swamp or marsh; (2) that it does not injure the health of a neighborhood; (3) that it does not damage residential property, except from the ideal point of view; (4) that it turns poor land into land capable of yielding luxuriant crops; (5) that its produce is beneficial to cattle; (6) that cattle fed upon sewage produce are themselves healthy; (7) that the food produced is fit for human consumption; (8) that a large farm cannot be carried on successfully except a large capital be

invested in it; (9) that the experience of sewage irrigation on the same land for fifteen years will justify the capitalist in putting capital into sewage agriculture. The farm under consideration belongs to the Croydon Local Board of Health, and is, we believe, the first of its kind established in England. It has now been in working order for about fifteen years.

The plan of irrigation adopted appears to be exceedingly simple. The crude sewage, as it comes from the town sewers, passes first through one of Latham's strainers, the extraneous matters (as rags, paper, hardened fæces, &c.) being mixed with dry straw and garden-refuse collected from the dustbins in the town, made into a compost, and partly sold to market gardeners at 2s. 6d. per yard. The sewage is at once applied to the land —*i. e.*, in a perfectly fresh state; and the testimony was undoubted as to the absence of smell on the land. The total quantity applied varies from three to eight or ten millions of gallons. The farm consists of 500 acres, 150 to 200 being under rye-grass cultivation; 50 are meadow, and are mainly used for the purpose of cleansing storm-waters; 82 are under cultivation for market-garden purposes, and the rest are sown with mangolds or other roots or cereals. A most excellent luncheon was provided by the host, all the materials for which had been grown or bred on the farm, as well as trout *en mayonnaise*, taken from the river Wandle, into which the effluent water flows. Samples of the effluent water were also shown, and were tasted by some of the company.

The weather on Saturday was most unpropitious, and was enough to damp the energy of all but such men as Dr. Carpenter, who chose a most pleasantly practical way of assisting to settle a much-vexed but very important question. We may remind our readers that, as the farm has now been in working order for fifteen years, the advocates of the system have had ample opportunities of drawing the above deductions, and the opponents of irrigation an equally good chance of disproving them. It must be remembered, too, that Beddington is a ratepayers' and not a model farm, so that money has not been spent, as Dr. Carpenter puts it, "for æsthetical purposes."—*Ibid.*

RULES FOR THE CARE OF THE EYES.

DR. D. F. LINCOLN, the Secretary of the Health Department of the American Social Science Association, has given the following "rules for the care of the eyes":

"When writing, reading, drawing, sewing, etc., always take care that—

"(*a.*) The room is comfortably cool, and the feet warm;

"(*b.*) There is nothing tight about the neck;

"(*c.*) There is plenty of light without dazzling the eyes;

"(*d.*) The sun does not shine directly on the object we are at work upon;

"(*e.*) The light does not come from in front; it is best when it comes from the left shoulder;

"(*f.*) The head is not very much bent over the work;

"(*g.*) The page is nearly perpendicular to the line of sight; that is, that the eye is nearly opposite the middle of the page, for an object held slanting is not seen so clearly.

"(*h*) That the page, or other object, is not less than fifteen inches from the eye.

"Near-sightedness is apt to increase rapidly when a person wears, in reading, the glasses intended to enable him to see distant objects.

"In any case, when the eyes have any defect, avoid fine needle-work, drawing of fine maps, and all such work, except for very short tasks, not exceeding half an hour each, and in the morning.

"Never study or write before breakfast by candle light.

"Do not lie down when reading.

"If your eyes are aching from fire light, from looking at the snow, from over-work, or other causes, a pair of colored glasses may be advised, to be used for a while. Light blue or grayish blue is the best shade, but these glasses are likely to be abused, and, usually, are not to be worn except under medical advice. Almost all those persons who continue to wear colored glasses, having perhaps first received advice to wear them from medical men, would be better without them. Travelling vendors of spectacles are not to be trusted; their wares are apt to be recommended as ignorantly and indiscriminately as in the times of the 'Vicar of Wakefield.'

"If you have to hold the pages of *Harper's Magazine* nearer than fifteen inches in order to read it easily, it is probable that you are quite near-sighted. If you have to hold it two or three feet away before you see easily, you are probably far-sighted. In either case, it is very desirable to consult a physician before getting a pair of glasses, for a *misfit* may permanently injure your eyes.

"Never play tricks with the eyes, as squinting or rolling them.

"The eyes are often troublesome when the stomach is out of order

"Avoid reading or sewing by twilight or when debilitated by recent illness, especially fever.

"Every seamstress ought to have a cutting-out table, to place her work on such a plane with reference to the line of vision as to make it possible to exercise a close scrutiny without bending the head or the figure much forward.

"Usually, except for aged persons or chronic invalids, the winter temperature in work-rooms ought not to exceed 60° or 65°. To sit with impunity in a room at a lower temperature, some added clothing will be necessary. The feet of a student or seamstress should be kept comfortably warm while tasks are being done Slippers are bad. In winter the temperature of the lower part of the room is apt to be 10° or 15° lower than that of the upper.

"It is indispensable in all forms of labor requiring the exercise of vision of minute objects, that the worker should rise from his task now and then, take a few deep inspirations with closed mouth, stretch the frame out into the most erect posture, throw the arms backward and forward, and if possible, step to a window or into the open air, if only for a moment. Two desks or tables in a room are valuable for a student; one to stand at, the other to sit at."—*The Sanitarian, N. Y.*

Editorial Notices and Answers to Correspondents.

A FATHER.—You had better apply to your usual physician for advice.

THE amount of the subscription to this Magazine will be $2.00 per annum, post-paid. Remittances are only to be made to the EDITOR PUBLIC HEALTH MAGAZINE, P. O. Drawer 25, Montreal. Clubs, Reading Rooms, &c., supplied at a liberal discount, if more than one copy is required.

MR. ROBERT BLACKWOOD, who has succeeded to the business of Mr. Charles Wilson, is now extensively engaged in manufacturing ærated beverages for summer use especially, from the recipes of his predecessor. We have tested them all—have seen the manner of their preparation in his factory, 99 St. Urbain street, Montreal, and can recommend them to our readers as free from any injurious ingredients. Mr. Blackwood is also sole agent for the celebrated "Yamachiche" Mineral Springs.